

The Only Weekly Mining Paper in the Union and Rhodesia.

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MINING JOURNAL

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"The South African Mines, Commerce & Industries"

ESTABLISHED 1891

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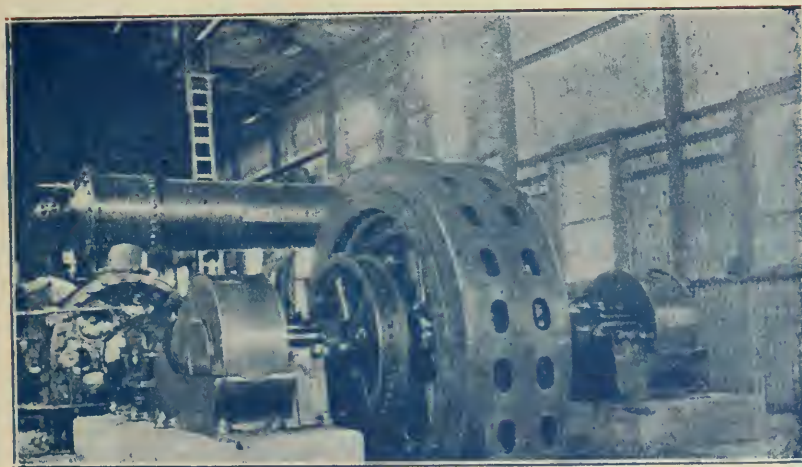
VOL. XXVI., PART II. No. 1344.] THE SOUTH AFRICAN MINING JOURNAL. JUNE 30, 1917. [WEEKLY, PRICE 6d.

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LIABILITIES.			ASSETS.		
	£	s. d.		£	s. d.
To Subscribed Capital	2,850,000	0 0	by Cash on hand and with Bankers	£4,314,812	10 3
285,000 Shares of £10 each (fully paid).			„ Remittances in Transit	1,343,567	4 5
„ Reserve Fund	525,000	0 0	„ Native Gold on hand and in		
„ Notes in Circulation	1,789,387	0 0	Transit	144,030	18 6
„ Deposits, Current and other Accounts	27,246,501	2 5		5,802,410	13 2
„ Drafts issued on Branches and Agents and			„ Money in London at Call and Short Notice		
Acceptances Outstanding at date	1,399,153	1 6	against Securities	1,675,433	16 9
„ Rebate on Bills not yet due	44,835	10 0	„ British and Colonial Government and other		
„ Bills Receivable on Account of Customers	4,229,615	14 0	Securities (including Stock lodged with the		
„ Profit and Loss Account—			Government of the Union of South Africa),		
Balance undivided at 31st			written down to 31st March, 1917, quotations	3,292,030	2 10
March, 1916	£44,293	17 3	„ Bills of Exchange	5,357,202	11 6
Net Profit year ended 31st			„ Bank Premises and other Properties in South		
March, 1917	374,310	6 0	Africa	789,771	12 3
	£418,634	3 3	„ Bills Discounted, Loans, etc.	17,158,663	10 0
Less Interim Dividend de-			„ Bank Furniture and Fittings, Stationery and		
clared 27th November,			Stamps	113,398	10 8
1916	84,000	0 0	„ Bills for Collection	4,229,615	14 0
	334,634	3 3	Loans guaranteed and secured (as per contra)	199,227	3 4
Contingent Liability in respect of Loans guar-					
anteed and secured	199,227	3 4			
	£38,618,353	14 6			
				£38,618,353	14 6

RESERVE FUND SINCE INCREASED TO £700,000.

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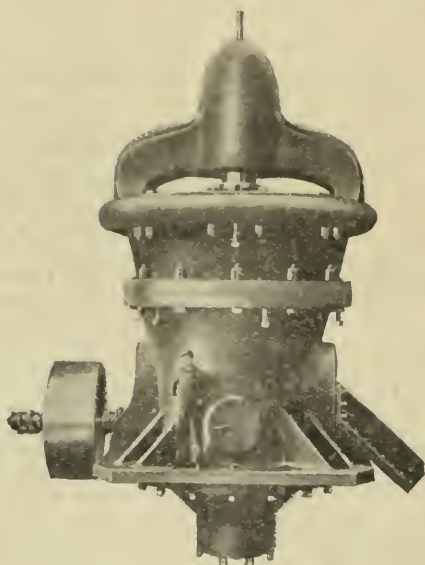
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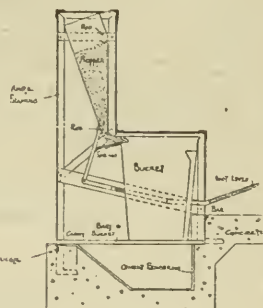
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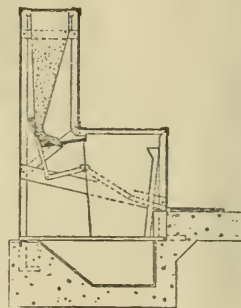
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THE SOUTH AFRICAN

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Notes and News.

Reports of the proceedings at several of the most important Rand company meetings appear in this issue. Their very number and importance make it impossible adequately to deal with them in this issue, but an early opportunity will be taken to return to the discussion of the multitude of points raised. Of outstanding general interest may be mentioned the remarks made by Mr. Samuel Evans at the Crown Mines meeting on native health questions, and the protest made by Mr. Christopherson against the Government proposal to impose an income tax on debenture interest. Indeed, the whole subject of increased taxation now being debated in the House of Assembly would seem to call for much more attention and publicity than have been so far given them on the Rand. The hasty and seemingly academic discussions now taking place in the Assembly on the taxation changes will assume a very different aspect in the months to come when translated into a material increase of the imposts levied upon the whole urban and industrial community.

* * * *

Justice was hardly done by the reporters to the forceful little speech, in which, at the meeting of the Chamber of Mines on Monday, **The Far East Rand and the Gold Law.** Mr. Dale Lace voiced the views of those who refuse to accept the offering of half-a-dozen areas on the Far East Rand as fulfilling the obligations of the Government. Mr. Dale Lace made the point that the real issue was the amendment of the Gold Law on the lines of the Mining Leases Bill, and the principle, he contended, was unaffected whether the Government offered four or fourteen areas for public tender. Mr. Wallers expressed the agreement of the Chamber with Mr. Dale Lace's views, and mentioned that a letter addressed to the Government on the subject was still unanswered. Perhaps before the end of the session the Government may reconsider its attitude.

* * * *

According to the *Engineering and Mining Journal* of New York, important steps have been taken by the United States officials toward the shipbuilding programme and in organising the railways. Contracts for munitions and supplies for the army and navy are being let; and nine new regiments of army engineers, to be composed mostly of highly trained railway men, will be the first American troops to be sent to Europe. They will go "at the earliest possible moment," the War Department announced on May 7. The new forces will be volunteers, raised at the nine great railway centres of the country. Each regiment will be commanded by an engineer colonel of the regular army, aided by an adjutant who will also be assigned from the regular army. The War Department has sent out orders for raising as rapidly as possible nine additional regiments of engineers, which are destined to proceed to France at the earliest possible moment for work on the lines of communication. The nine regiments first to go to France will be organised under the National Defence Act, which allows the President in time of emergency to call for the formation of special units. Recruiting for the regiments and the organisation of each force will be directly under the colonel of each regiment. Recruiting machinery of the regular service or the National Guard will be placed at their service and it is hoped the enrolment of the troops will take little time. The decision to send the engineers is understood to have grown out of conferences in New York between Government officials and members of the French and British war missions. One of the greatest problems of the war has been that of maintaining adequate supply lines. The Military Engineering Committee of New York, in the membership of which all the national engineering societies are represented, with headquarters at 29, West 39th Street, has been active in the preparatory work of equipping this force.

What most people will agree is a very justifiable protest is registered by the *Diamond Fields Advertiser*. The paper points out **The Taxation of the Diamond Industry.** "The Government is evidently bent upon getting the last possible farthing out of the export tax, but when they talk about levying the duty upon the realized value we very much doubt whether, in the words used by the Minister in another connection, they will find the game worth the candle by the time the last stage has been reached. On the face of it, the method suggested seems entirely impracticable. If the tax is to be imposed at all, it should be on the market value at the time of export, which can be readily ascertained. To sum up, we have the diamond industry subject during the war period to:—(1) The 5 per cent. normal tax; (2) the 7½ per cent. dividend tax; (3) the 5 per cent. export duty, equal to about ten per cent. on profits; leaving out of consideration the liability to 25 per cent. of any excess profits, and any questions of enhanced expenditure in one direction or another which may arise in connection with the situation occasioned by the war."

Despite the many difficulties due to the war, the chairman of the National Bank was able to present an excellent report at the annual meeting last week. As regards the financial position of the bank, it is noteworthy that the reserve fund is being increased to £700,000, making the paid up capital and reserve together £3,550,000, which the chairman (Hon. Hugh Crawford) points to as affording very ample security to depositors. Notes in circulation show an increase of £543,104, the total at the date of the financial statement being £1,789,387. The increase in deposits amounts to no less than £4,089,258, the figure at date being £27,246,501, as compared with £23,157,243, a splendid tribute to popular confidence. The cash assets show the substantial total of £7,477,843. Investments, at market value on 31st March, and representing first-class British and Colonial Government stocks, including war loan and British Treasury Bills, amount at this latest valuation to £3,292,030. Bills of exchange show an increase of £894,270, the total being £5,357,202. In the aggregate the Bank's liquid assets, comprising cash, money at call in London, investments and bills of exchange, amount to £16,127,075, constituting 53 per cent. of its liabilities to the public. Bills discounted, loans, etc., which stood at £14,227,831 in the last statement, now figure at £17,158,663, an increase of £2,930,832. The chairman points out that the higher expenses and prices of the war period have made the task of the banks a very onerous one. The National Bank shareholders may, however, be congratulated on the results. The net profit for the year has been £418,634, as compared with £221,576 for the previous year—this after making provision for £80,000 in reduction of bank premises account. The payment of a dividend at the rate of 6 per cent. per annum for the second half of the financial year, added to the interim dividend at the same rate already paid for the first six months, absorbs £169,500. £175,000, equalling another 6 per cent. dividend, is allocated to reserve, and £25,000 to pension fund. This leaves £49,134 to be carried forward to the ensuing year. The figures quoted provide the best possible testimony to the sound administration of the bank's affairs in a year of trying and exceptional conditions. The chairman's remarks regarding the extent to which, despite such gradual increase in note circulation as may have been observable of late, the employment of gold continues to be the all-too-common custom in South Africa. In no other part of the world, it is suggested, is gold coinage so largely used. It is obvious that South Africa could still do much, in the direction of releasing gold, to assist the Imperial authorities in dealing with the always serious problems of exchange. One factor which no doubt operates to restrict a freer note circulation is, as the Hon. Hugh Crawford points out, the distrust of the native population towards any medium of exchange other than coin of the realm. The white community, however, can do much to remove this prejudice, by example and precept, if they seriously set themselves to the task.

A full list of the dividends for the first half of the current year will appear in our next issue. For their dividends declared for June are:—**The Half-Year's Dividends.** City Deep, 4s. 6d.; Main Reef, 1s.; Wit. Deep, 1s.; Crown Mines, 2s.; New Modder, 13s.; Modder B., 8s.; Rand Mines, 3s. 9d.; Nourse Mines, 1s. 3d.; Geldenhuys Deep, 2s. 6d.; Sub Nigel, 1s. 6d.; Village Deep, 1s. 6d.; Durban Rodepoort Deep, 6d.; Robinson Gold (£5 shares), 3s. 6d.; Rose Deep, 2s. 6d.; Pretoria Cements, 4s.; Meyer and Charlton, 10s.; George Goch, 1s.; Van Ryn Estates, 3s. 6d.; Crown Debentures, 50s.; Leeuwpoort Tins (first), 1s.; Glencoe Collieries, 6d.

De Beers Company has declared a dividend of 20s. per share to the deferred shareholders at June 30, 1917, and also declared the usual dividend of 10s. per share to preference shareholders at the same date. It is officially stated that the board of directors at the same time unanimously voted a donation of £50,000 to be divided equally between the British and French Red Cross Societies. It will be remembered that the directors voted about ten months ago the handsome sum of £20,000 to the Governor-General's Fund, and the munificent grant of £50,000 which is now given to the funds of the Red Cross Societies is further evidence of the company's tangible support of the patriotic funds connected with the war.

In the House of Assembly on the 20th inst. Mr. Papenfus asked whether, in view of the urgent recommendations contained in the report of the Select Committee on the East Rand Gold-bearing Areas, the Government will undertake to introduce legislation during the ensuing session in terms of the Committee's report? The Minister of Mines replied: This question will be considered during the recess, and the Government will be largely influenced by the character of the tenders received for the areas on the Far East Rand recently advertised.

According to Reuter, it is stated that the development of the mineral resources of the United Kingdom, which a department of the Ministry of Munitions is undertaking under Sir Lionel Phillips, is likely to lead to far-reaching results. Sir Lionel is bringing the knowledge and experience gained by a life's work in developing the mineral resources of South Africa to his new task, and a number of engineers of outstanding ability and position are also assisting the efforts of the Department. Already considerable work has been done in furthering war purposes. Steps are being taken to control and expand the wolfram mines, from which it is expected to produce the Home supply of tungsten powder, an essential ingredient in the manufacture of high speed steel. The lead resources of the country are also being completely surveyed. New sources are being investigated, and old workings are being re-opened. Action, too, is being taken in the production of zinc.

The coal output for May is returned at 942,001 tons, of the value of £292,375, an increase on April of 128,000 tons, and in value £39,901. This constitutes a record for the Union. The Transvaal produced 593,720 tons, an increase of 73,847; the Cape 724 tons, a decrease of 32; the Free State 77,382 tons, an increase of 9,301; and Natal 270,175 tons, an increase of 45,154. There were sales and shipments of copper from the Cape and Transvaal extending to 1,070 tons, valued at £57,274 and of tin 266 tons, representing £37,282, both being average. There were productions of lime in all the Provinces, the total output aggregating in value £12,285, of which the Transvaal's share was £9,276, the Cape's £1,717, the Free State's £482, and Natal's £810. This also is a best output. The labour return shows that 32,156 whites and 277,955 coloureds were employed in mining throughout the Union, the former being a decrease of 152 and the latter a decrease of 6,083 on the figures for the previous month.

TOPICS OF THE WEEK.

RAND MINING PROBLEMS OF TO-DAY.

THREE questions almost monopolized the speech of the President of the Chamber of Mines at the quarterly meeting of that body on Monday. These were the pooling of imported stores by the mines, including the diamond mines and the collieries of the Transvaal, the constitution of the Mine Workers' Union, and the ever-recurring shortage of native labour. The very explicit explanation given by Mr. Wallers in regard to the first question will reassure the merchants, and remove all doubts regarding the intentions of those responsible for running the industry. The action now contemplated is consequent upon the desire of the Munitions Department of the Imperial Government to reduce to a minimum the demands upon men, material and transport, and in tightening up the arrangements for dealing with imported stores the mining industry is merely doing its duty by the Empire. Mr. Wallers put the matter in a nutshell by saying: "We have to see to it that the call we make upon the resources of Great Britain as to labour, material and freight shall be reduced to the smallest possible dimensions that will enable us to effectively carry on the industry. By doing so we shall establish with the Ministry of Munitions indisputable proof that we are doing everything it is possible to do, and our co-ordinated requisitions in the future for essential stores will be known to be minimum requirements and our permits immediately honoured as such." A central buying office, under Mr. Nethersole, will be created to purchase imported supplies for the whole industry from and through the merchants, and Mr. Wallers promised that the interests of the latter would in no way suffer—beyond a necessary restriction in buying—by reason of the change. The explanation given by Mr. Wallers should serve to remove all doubts in regard to the matter. Passing to the consideration of labour questions, Mr. Wallers drew a moral from the excellent organisation of the S.A. Engine Drivers' and Firemen's Union that should not be lost upon the Mine Workers' Union. The former by reason of its solidarity had been able to make a very satisfactory agreement with the mines on all disputed questions. The latter, by reason of its failure to amend its constitution, had stultified itself in its dealings with the employers and had reached what Mr. Wallers rightly described as the very negation of trades unionism and collective bargaining. We do not profess to know the reasons underlying the action of the majority of the members of the latter Union, but they have certainly put themselves in the wrong by it, and rendered almost fruitless all the good work achieved by their own appointed spokesmen. Nothing, of course, is to be gained by any attempt of the employers to alter the existing unsatisfactory position. Nothing but the education of the men by their own leaders and by their more thoughtful members can be expected to enlighten them in regard to the advantages of collective bargaining, with its corollary, stability of conditions for employer and employed. That process of enlightenment will doubtless require time for its completion. Meanwhile, it is to be hoped that both sides will patriotically refrain from raising any other contentious questions during the war. The native labour position has again become serious, and for several reasons very clearly detailed by Mr. Wallers. Unfortunately, owing to lack of supplies, it is not possible to offset the shortage of hammer boys by using more big machines. Moreover, the new demands on the supply of native labour, caused by the war-recruiting, the revival of diamond production, and the greater activity shown by other industries show a progressive increase; and little relief can be expected before August. However, the industry is very wisely offering a bonus to natives who extend their contracts of service, and endeavouring in other ways to stimulate recruiting for the mines. These efforts, it is to be hoped, will cause the present shortage to be but temporary and short-lived. Dealing with the recommendations of the Select Committee on the amendment of the Miners' Phthisis Act, Mr. Wallers described their net effect as being to "increase to a very great extent the compensation to

be paid." His references to new legislation drew from Mr. D. Christopherson a well-grounded protest against the tendency of the Government to introduce legislation affecting the mining industry at the fag-end of a protracted session. This is a genuine grievance of long standing, and not a moment too soon has this protest been raised against "rushing tactics" that would never be allowed by, for instance, the agricultural interests in the Union Parliament. Anything, however, seems good enough in the eyes of our legislators for the unfortunate mining industry, and the Chamber would be well advised to endorse and transmit to the Government Mr. Christopherson's very timely expression of opinion. Not less opportune were Mr. Dale Lacey's forceful remarks on the dilatory policy of the Government in regard to the necessary amendment of the Gold Law to meet the needs of the Far East Rand. Mr. Wallers declared his complete agreement with the protest, and the result, we may hope, will be to extract from the Government a definite promise that the long-promised reform of the Gold Law will be duly effected during next session.

An interesting reference was made by Mr. Samuel Evans, the chairman of the Crown Mines, at the annual meeting last week to the immunisation of natives against pneumonia (a disease which had been a scourge to the mining industry), and its practical elimination, he said, would rank as one of the great triumphs of modern preventive medicine. The chairman mentioned that in the last seven years among natives employed on the mines there were over 50,000 cases of pneumonia, resulting in 12,721 deaths, and the loss of over one million working shifts. Dr. Lister, of the S.A. Medical Research Institute, had shown that there were several varieties of pneumococci bacillus, which caused pneumonia, and that a vaccine could be prepared which would immunise against attacks of the particular type of pneumococcus contained in the vaccine. As the result, the Institute was now making vaccine which appeared to render natives immune from infection by three strains of pneumococci, which were responsible for most of the cases of pneumonia among mine natives. Systematic tests were being carried out at the Premier diamond mine, at De Beers mine, Kimberley, and on the Crown Mines property, with distinctly promising results. The members of the Native Contingent sent to France were all inoculated with the South African Medical Research Institute vaccine, and he understood that they had been singularly free from pneumonia, in spite of the severity of the past winter in Europe.

* * * *

We are in receipt of a full report of the proceedings at the sixth annual meeting of the members of the Rhodesia Native Labour Bureau. In spite of adverse circumstances arising out of military requirements in the way of native labour, the position so far as last year is concerned was far from unsatisfactory, though, as the report shows, the immediate prospects are not very hopeful. The number of natives supplied to employers in 1916 was 6,693, of whom 5,106 were recruited in Northern Rhodesia and 1,587 in Portuguese territory. This compares with a total of 11,316 natives supplied during 1915, when 8,512 were recruited in Northern Rhodesia and 2,804 in Portuguese East Africa. The number of natives repatriated by the Bureau was only a trifle less in 1916 than in 1915, the respective figures being 8,688 and 8,998, but while in 1915 the influx of recruits exceeded the repatriates by 3,355, last year the repatriates exceeded the recruits by 2,319. The capitation fees dropped from £34,751 in 1915 to £20,171 in 1916. It is a tribute to the management of the Bureau that in these circumstances it should be possible to show a nett surplus of over £2,000 on the past year's accounts. There is an increasing tendency to realise the benefits conferred by the Bureau, as is shown by the membership returns, the notable feature of which is the considerable access of farming members in the past year.

ASBESTOS MINING IN RHODESIA.

[FROM A CORRESPONDENT.]

THE presence in Rhodesia of asbestos-bearing serpentines was known of long before the industry reached its present importance, but owing to various circumstances, principally caused by the prominence given to mining for the precious metals, the possibilities and profits of asbestos mining lay dormant for some years. Then came the war, and prices advancing by leaps and bounds, the industry was then taken up in earnest and placed on a sound footing. The King's Asbestos Company was floated in London to mine an area in the Victoria district. This company was followed by the Victoria Rhodesia Asbestos Company, and both proceeded to vigorously open up their properties, and install up-to-date machinery on the mines. These companies are now capable of maintaining a regular monthly output of from 500 to 700 tons a month. Unfortunately, owing to shortness of shipping, this output cannot always be got away. Several small workers are, I am told, doing well with their mines. This class of mining appeals especially to the individual miner, as the veins of asbestos are always in sight and easily followed and mined, and little or no technical knowledge is required. Recently in the Belinege district, situated some 45 miles from the Victoria belt, large and very rich deposits have been located, and I am told that for length and quality of fibre they are equal to any known deposits yet found anywhere. Needless to say, these mines are being most actively opened up and being equipped with the latest types of fibre dressing machinery. The best results to date from these new finds are being obtained by the Charterland and General Finance Company, who also control the V.R.A. mine in the Victoria district. There are

also two other companies actually at work, and many small workers are opening up ground. Finds of asbestos are also reported in the Lomagundi and Gwelo districts. But the country is so vast that one would imagine that the Government would request that the staff of the Geological Survey should be employed to locate and map out the positions and possibilities of the serpentine belts. This service would be of real and lasting benefit to the country at large. Asbestos ore is not the only asset to be found in the serpentines; chrome, iron and nickel are usually found in this formation. In fact, large bodies of chrome ore have already been located in the Victoria district, also traces of nickel and copper ore. At the present time I understand that European engineers and agents are touring the country examining likely deposits. And from the number of transfers taking place, it is evident they are well satisfied with the result of their work. There can be no doubt that the industry has come to stay, and will be of lasting and permanent benefit to the country. The deposits of fibre have every appearance of permanence to considerable depths, and the length of strike is very great. In the Canadian mines the deposits have been proved to 500 feet in depth, and no Rhodesian mine is a fifth of their depths. As the fibre is won by open quarry work, this means long lives and enormous tonnages. In view of the declining gold output, it seems as if asbestos mining was destined to make good the deficiency. The country is healthy, well watered and wooded, labour cheap and fairly plentiful, so that the essentials for successful mining seem to be assured.

"CHINDE."

Roll of Honour.

The following is the list of employees of the Central Mining-Rand Mines group who have been killed or have died on active service up to the 31st of May, and to whom the chairman of the Rand Mines, Ltd., made sympathetic reference in his speech on Wednesday:—Captains: A. S. Holmes, W. D. Madore, P. Newton, E. Whiting. Lieutenants: E. E. Brannigan, T. H. Challis, R. E. Gillett, F. C. Lee, J. A. McMillan, W. Nicklin, F. J. Ormsby, R. J. Rockey. Sergt.-Major T. K. Turner. Sergeants: T. C. Adams, J. Benson, B. S. Mackay, W. S. MacDonald, A. Smithdorff. Lance-Sergt. William Seeley. Corporals: C. R. Bredell, A. F. Connor. Lance-Corporals: G. E. Brink, J. V. Davison, D. Estill, C. H. Emery, R. B. Eadie, E. W. H. Greenway, D. G. Hedding, E. F. Oldfield, W. Townsend, S. Wild, A. F. V. Wehner. Trumpeter S. H. Curtis. Bugler C. J. R. Tinkler. Bombardier E. Robertson. Gunners: James Duffy, A. Jenkinson, M. Bailey, W. R. Brand, G. C. W. Chevalier, J. H. Cowle, H. Chittenden, E. H. Crawley, W. C. Carnegie, H. Cowan, R. F. Dodd, A. H. Dixon, W. T. Edwards, M. J. Fleming, B. Fitzmaurice, N. G. Fenix, D. J. Farquharson, M. A. A. Franken, A. Freeman, W. C. Goodwill, J. Green, E. A. Good, J. D. Gilbert, G. N. Gregory, L. Hawthorne, H. Halliday, H. J. Horne, R. C. Harper, H. W. Hunter, C. N. Hugo, J. F. Hair, A. J. Kirkman, F. C. Kay, H. M. Lowe, H. J. Louw, W. C. Manuel, A. Muir, J. P. Marsh, H. W. Matthews, A. C. Meyer, I. M. McCusker, J. S. McGregor, William McLeod, William Murphy, R. F. McCoy-Kemp, W. M. Noble, George Neish, M. Nagel, A. A. Nelson, A. Pero, J. S. Pressly, H. G. Petrie, A. Penny, J. Paterson, R. R. Rex, J. Richards, R. T. Powley, W. Roden, M. Sikimich, H. E. Snell, S. M. J. Sparkes, Thomas Scott, J. K. Telford, B. R. L. Verbeek, W. White, W. T. R. Wales, D. H. Wishart. Conductor G. Raath. Driver D. A. Snashall.

Delagoa and Swaziland Coal.

A statement was made at the last meeting of the Lourenco Marques Chamber of Commerce with reference to deposits of anthracite coal in Swaziland, 20 miles from the Portuguese border and 70 miles from Delagoa Bay. The matter was discussed from the point of view of their being exploited to the advantage of Delagoa Bay as well as of Swaziland. The coal is stated to be of excellent quality. It is recognised that steamers and railway engines are fitted for burning bituminous coal, but they can easily be fitted to burn anthracite, as has had to be done in certain parts of America. As regards steamers, it is pointed out that they could burn briquettes of three parts anthracite and one part bituminous coal, and would even prefer it. The Chamber, therefore, decided to draw the attention of the Port and Railway Authorities to this matter with a view to inquiry into the question of establishing a factory at Delagoa Bay to produce such briquettes.

Mine Workers' Union and Miners' Phthisis.

At a meeting last Sunday of delegates of branches of the S.A. Mine Workers' Union, the report of the Select Committee on Miners' Phthisis was generally approved, but it was decided to send a deputation to Capetown to press for certain amendments and also to urge mine workers to sign a petition asking that no disabilities should attach to overseas miners or dependents overseas; that there should be no reduction in the total amount of compensation, namely, £750, after August 1, 1918; that a third of the Board should be direct representatives of the Miners' Union; that a miner showing indications of silicosis should receive his compensation irrespective of loss of capacity for work, and that there should be the right of appeal.

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THE NATAL COALFIELDS: PHASES IN DEVELOPMENT.—I.*

[By WM. TAYLOR HESLOP, St. George's Colliery.]

NEARLY fifty years ago Peter Smith, the father of Dundee, commenced to dig coal from an outcrop in the bed of the spruit, near to the present day town of Dundee. With rail-head somewhere to the south of Maritzburg, the demand for coal was very limited. The method of working was simple in the extreme. The "colliery-owner" made a charge of ten shillings per ox wagon load, and allowed the purchaser to dig the coal and help himself! During the year 1888 the railway was completed to Dundee, the railway truck displaced the ox-wagon, and the Dundee Coal Company commenced active operations at Dundee. In the year 1889 the coal output made up from collieries at Sundays Power, Wessels Nek, and Dundee, reached a total of 25,609 tons. Since then there has been, not a rapid, but a steady progress year by year, with hardly any set-backs except those due to the incidence of war. During those many years of development there have been phases and landmarks of history of sufficient interest to be placed on record. In 1881 the Natal Colonial Government employed Mr. Frederick North to report on the coal resources of the Colony of Natal. North traversed from end to end a country without railways, without roads, and with only rudimentary topographical maps. He compiled a mass of sections, and analyses of coal as it occurred at the outcrops, that are still of great value for reference. He made maps, which still give reliable information as to outcrops, and only erred by including a few areas, as probably coal bearing, which subsequent boring, or geological investigation, have proved to be barren. His investigations furnished justification to the Government of the day to push northward from Maritzburg with railway development. By the time the railway had reached Ladysmith the opening of the Rand Goldfields gave courage to the more timid of the advocates of railway development. The first proposals were to lease the present route of the main line of railways at Elands-laagte, follow the old transport road, pass through the Biggarsberg Range at One Tree Hill, and on by Calabash-laagte to Newcastle. This would have left the whole of the Dundee district miles away from the railway. More recent investigations made by Mr. F. A. Steart, Inspector of Mines, have proved that this route would have left the coal-bearing areas near Wessels Nek, have traversed an older geological formation, viz., eccla shales, for about fifty miles, and only again touched the coal measures when within a mile or two of Newcastle. Fortunately at that time Dundee had some zealous champions, amongst whom the late Sir George Sutton and Mr. C. G. Willson were conspicuous, whose advocacy secured an alteration of the route, by way of Glencoe Junction and Hatting Spruit. From Glencoe Junction the Dundee Coal Company constructed a branch railway to Dundee, and very soon the coal trade became an active factor in the public economy of the Colony of Natal. Railway connection to the coalfields was of vital importance, not only to the collieries, but also to the railways, and the colony. Before that time all locomotive coal was imported, and in 1885-6 the cost of running the railway was six shillings per train mile and the actual earnings were slightly less than that amount. The railway was being run at an actual loss. By the end of 1888 the running costs had been reduced to four shillings per train mile, and the earnings had jumped up to seven shillings and fourpence. From the verge of insolvency the railway had become a highly profitable institution, and the credit of the Colony was saved.

The Dangers of Firedamp.—For some years all the coal was worked from outcrop adits, and shallow pits, in a primitive way, and with primitive appliances. During 1897 the Natal Navigation Collieries put down a pit to a depth of 200 feet and encountered considerable quantities of firedamp on reaching the coal. Firedamp became an active menace to safety in coal mining, and the collieries were hardly prepared for it. Mining regulations also were crude

and ineffective, and the Government appointed a Commission to compile new regulations. With deeper sinkings, the question of firedamp assumed more serious proportions. In 1899 an explosion took place at St. George's Colliery, resulting in the death of one European and three natives, and injuries to five others. About this time smaller explosions took place at Elands-laagte, Natal Navigation, Campbell Colliery and South African Colliery. In 1901 one European and thirty natives were killed by an explosion at the Campbell Colliery. In 1906 an explosion took place at Elands-laagte Colliery, resulting in the death of eighteen natives and Indians. The culminating explosion of the coal field took place at Glencoe Colliery in 1908 when twelve Europeans and sixty-three natives lost their lives. In this explosion two new features for this coalfield were introduced; firstly, the mine took fire, and a series of some six separate explosions took place, and secondly, the final explosion was partly due to firedamp and partly to coal dust. A few months later, an explosion similar in almost every respect, except that there was no loss of life, took place at the Cambrian Colliery. Such a series of disasters naturally had a salutary effect on the conduct of mining operations. More care was exercised in supervision, both by managers and inspectors, and in the actual work of mining, experience was gained by both white and black employees. The methods and customs of the outcrop collieries of the Transvaal and Natal had to be gradually discarded or revised. Ventilating fans of Capel, Schiele or Waddle types were installed at nearly every colliery. The use of any but "permitted" safety explosives was stopped, and shot firing by electricity became universal. At a later stage, when the dangers of coal dust became manifest, "stone dusting" not only of main roads, but of completed workings near the faces was adopted. The stone dust generally employed consists of sifted ashes, and does not contain sufficient silica to be a source of danger to health.

The Deeper Sinkings and the Dolerite.—As the sinking of deeper shafts were proceeded with, it was found that large horizontal sheets of intrusive dolerite had to be passed through, and this is a characteristic feature of the coalfield. The coal in proximity, or even at considerable distance to the dolerite was naturally coked by the tremendous heat, and converted into anthracite or semi-anthracite, according to whether it was near, or further away from the originally molten rock. These lateral intrusions of molten igneous rock extended in many cases for several square miles, and in thickness up to 400 feet. As the sheets of dolerite cooled, they contracted to some extent, forming vertical cleavage planes, producing huge polygonal columns, sometimes hexagonal, but often irregular. Near the adjacent sedimentary rock, with which it was in contact, cooling was more rapid, and in consequence there was a kind of case-hardening which left the dolerite sheet always hardest at the outside and softer and more coarsely granulated in the centre. The basaltic columns of the Giant's Causeway, in the North of Ireland, and at Staffa and Iona in Scotland, are familiar examples of the columnar structure above described. In the upper reaches of most of the mountains of the high veldt, the same formation can be observed. In sinking through such rock the miner found it exceedingly hard to drill and to blast, and heavy charges of explosive were

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* Paper read before the C.M. and M. Society of S.A.

required, and in such hard rock progress was slow and difficult. The extra hardness of the upper portion of the sheet gave a sense of security, but the vertical columns, although hard, were only loosely attached to each other. Moreover, they frequently were not truly vertical, and as the shaft was deepened, on one side or the other, the foundations of one of the huge columns were gradually undermined, and there was grave danger that even in a well timbered shaft, an undermined column would slip down, drag the timber with it, and thus be a source of danger to the workers. At the Ocean Colliery, to the south of Elandsbaagte, and at the original South African Colliery, shafts were sunk through the dolerite, and abandoned after completion. At Glencoe and Cambrian Colliery, thick sheets of dolerite, in the latter case 280 feet, were successfully sunk through. In addition

to the columnar structure already mentioned, the dolerite has a distinct, although less clearly defined, slaty cleavage which is at right angles to the column. This characteristic is of considerable value when borehole cores have to be examined with a view to determination whether the dolerite exists in the form of a sheet or otherwise. At the junction with the country rock there is frequently a certain amount of "absorption" matter, i.e., sedimentary rock has been fused and absorbed into the igneous flow. The variations of texture and colour at points as far as 1 foot from the contact are evidence of this. Against the contact, sandstones are frequently fused to quartzite, and shales are robbed of their carbonaceous components, and have become white in colour, instead of blue or black.

(To be continued.)

THE POSITION OF THE GLOBE AND PHOENIX.

THE report of the Globe and Phoenix Gold Mining Company for the year 1916 has just been issued. The directors state that a considerable tonnage of payable ore in parts of the mine, more particularly to the south, has been exposed. Two hundred and seventy-five feet of driving on the second level south has given 17 dwts. over 11 inches, and in a winze down from this level values of 29 dwts. over a width of 45 inches have been exposed. At the tenth level south a distance of 300 ft. of driving accomplished showed 16 dwts. and on the twelfth level south drive 26 dwts. were obtained over a distance of 912 ft. In driving north on this same level over a distance of 197 ft. values of 19 dwts. were obtained, and a rise from this level gave 33 dwts. over a distance of 366 ft. In a rise from the thirteenth level 28 dwts. were encountered over a distance of 109 ft. The directors consider these results satisfactory. For reasons which have been stated from time to time no exact estimate of ore reserves is at present available, but the Board has received from the general manager his estimate of the position as at the 31st December last, which is as follows: Total tons, 173,981, containing 257,040 ozs., equal to 29.5 dwts. per ton, of a total value of £1,079,568. In addition there are the accumulated sands and slimes. This estimate of ore reserves may be compared with the last published official announcement as at 31st March, 1915. Tonnage, 189,200; ounces, 278,124; value per ton, 29.4 dwts.; total value, £1,168,120. Owing to the exceptional circumstances which have hampered development during the last two years the directors regard these figures as satisfactory. Certain modifications of the new sands plant have been advised as a result of experiments, but owing to the difficult conditions arising from the war the full benefit of these has not yet been obtained. In the meantime, however, costs have been materially reduced, and the profits show a substantial increase over those obtained in the plant before reorganisation. Ample labour has been obtained during the year and no material expenditure has been incurred on account of capital. As to the trading stores and farms, conditions have been unfavourable for any satisfactory disposal of these assets. Trading has been carried on at a satisfactory profit, and the business is now on a thoroughly sound footing. The net profit of the company, after bringing in £6,062 and writing off the litigation expenses amounting to £53,471, was £164,767. Two interim dividends have been paid in respect of the year 1916, leaving a balance of £4,767, which will be carried forward to the current year. The decision of Mr. Justice Eve in favour of the company has

freed the amount of £102,000 set aside from the profits of 1914 and 1915. The directors have subscribed for £50,000 War Loan. From the balance they recommend a distribution of 1s. 6d. per share, less tax at the rate of 2s. 8d. in the £, this being the rate chargeable during the period in which the amount now to be distributed was set aside. This will absorb the whole of the £102,000. In accordance with the practice of numerous other public companies, a resolution will be proposed that the additional remuneration voted on 15th December, 1916, and the directors' remuneration under article 88, be paid free of income tax till otherwise ordered in general meeting. The gold output was £415,425, bringing the total production to 31st December to £4,921,113. The long and arduous character of the litigation and the questions involved were fully explained to the shareholders at the extraordinary meeting on 15th December. The decision of the Judge was satisfactory on all points and leaves the directors free to continue the working of the mine without outside interference. An appeal against this decision has been lodged by the Amalgamated Properties of Rhodesia and will shortly come before the Court of Appeal. The directors have no fear of the issue. With great regret the board record the sudden and unexpected death of Mr. Piper from an attack of pneumonia. Mr. Piper had acted as general manager and subsequently as consulting engineer to this company for the past twenty-two years, and the shareholders will desire to place on record their sense of the valuable services which he has rendered to the company and of the loss which the company has sustained by his death. War conditions have again caused the staff in South Africa and the board considerable anxiety, but owing to the energetic and long-sighted action of the officials at the mine the results from the year's working have been less affected than was at one time thought possible, and a considerable stock of materials in excess of the usual quantity has been purchased. The board consider that under the very trying war conditions it has been a great achievement to keep the mill running full time, to continue development work, to maintain the output of bullion and still to have no appreciable reduction in the amount of ore reserves.

Apex Mines.

During the month of May, the Apex Mines, Ltd., sold 18,504 tons of coal, realising a profit of £2,405.

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S.A. INSTITUTION OF ENGINEERS: PRESIDENT'S VALEDICTORY ADDRESS.—II.

A Plea for the Federation of Scientific Societies.

The following is a continuation of Mr. Price's paper: It has often appealed to me that we sacrifice a great deal of effort by endeavouring to maintain as separate bodies so many struggling scientific and technical societies. Although the membership of a society may be drawn from all parts of the country, it is only those resident in the neighbourhood of headquarters who are in a position to take an active share in the work of the Institution. The technical community on these fields is not a very large one when divided between the various branches of science and technology, of which it is representative, and when allowance is made for the inertia displayed by the vast majority of the members of this community, it is not surprising that the technical societies find it so difficult to make headway.

More than two years ago this matter was raised by Mr. Percy Cazalet, and was seriously considered by the Council. As you know, informal discussions have since been taking place between representatives of three societies, of which this Institution is one, and I venture to direct attention to the following aspects of the matter, which have specially appealed to me personally.

Close "co-operation," or as I would myself prefer to term it, "federation," between the leading societies on the Rand would facilitate the expeditious and effective treatment of problems which now face this country in common with other dominions of the Empire. As a result of the war, the nation has been awakened to the fact that science and industry has been in a relatively disorganised condition, that there has been a lamentable want of appreciation of the part which science and the technical professions should play in the development of the natural resources of the Empire, and that it is high time we put our house in order for the purpose of enabling scientific and technical men to assist in the industrial development of our resources on which the future progress of the allied nations so much depends. Even in this country, we have seen epoch-making developments in these directions during the last year. In the absence of any federation of scientific and technical bodies, all institutions and associations voluntarily came together at a joint conference of councils in order that united action might be taken on the question of industrial development and research. The Union Government welcomed this evidence of unity amongst scientific and technical men and readily accepted and adopted the recommendations which were subsequently submitted to it by the Committee representing the scientific and technical societies of the country. Later the societies were called together by the South African Association for the Advancement of Science in regard to the introduction of the Metric System and Decimal Coinage. Then, again, we have recently witnessed the formation of an electrical committee representative of various societies and bodies and created for the purpose of framing standards for electrical work throughout the country. This also is a most important step and one which should assist towards efficiency in the future development of South Africa. I feel that these developments all point to the value of combined organisation of the various bodies which represent the scientific and technical professions.

In the next place, I am of opinion that a federation of the societies would increase the efficiency of each component part. On the one hand, the duplication of a considerable amount of work would be eliminated and, on the other hand, facilities would be created for performing the useful work more efficiently. Whether we may have specialised as mechanical, electrical or mining engineers or as chemists, metallurgists or geologists, our work is often inter-related and of mutual interest. The scientific and technical men engaged in all these branches are in a position to bring forward a certain quantity of information, experience and data for assimilation and discussion. The primary function of the various societies is to provide a convenient and congenial channel whereby such information, experience and

data may be considered and distributed to all who may be interested. In my opinion it is possible to organise the societies under some scheme for closer working so that a better use may be made of this output of available experience and knowledge, and I believe this could be done at a smaller total expenditure of money and effort than is to-day expended by the several individual bodies. I have carefully avoided the use of the term "amalgamation," and I certainly would not advocate any scheme involving complete absorption of one society into the other. I believe a feeling has existed that any scheme for closer working would introduce a risk of curtailing the development of certain sections. I hold a precisely opposite view and believe that if the societies were to join forces under a combined organisation, each component part would benefit and would enjoy increased opportunity for development. One of the main objects of any such scheme would be to increase the usefulness of each section to the utmost by rendering available an increased amount of information of interest to that section and by rendering it possible to disseminate such information to the maximum number of people interested therein. Another aspect, and one which has until now received more attention than any other, is the social one. All the technical societies on the Rand suffer from the fact that they have no home of their own. Apart from the half hour spent over refreshments at the termination of our monthly meetings and any special functions which may be arranged from time to time, we have no means for promoting social intercourse between our members. It would clearly be of immense benefit to all societies if by combining under some federal scheme they were enabled to obtain housing accommodation under one roof. No individual society can hope to obtain a building of its own, but it does not appear unreasonable to hope that when the war is over, funds may be obtainable for a joint building suitable for the use of a number of societies situated in close proximity to a technical library. There are few objects which in my opinion should commend themselves more warmly to the generosity of industrial concerns on these fields and to individuals interested in the industrial development of this country than that of providing a suitable home for the institutions which represent the various branches of science and technology on which such industries so largely depend both for their existence and prosperity. Given the means, so greatly needed, for building and equipping suitable headquarters for the scientific and technical societies the federation of these societies should be a matter easy of accomplishment. The question is one of national importance and I have no hesitation in expressing the opinion that an institution such as I have described should rank in importance with other seats of learning not only on account of the opportunities it would afford for extending scientific and technical education to successful practice but also on account of the impetus which it would give to the application of science and technology for the development of this great country. The somewhat large sum of money required for this purpose would be a small price to pay for the benefits which would accrue in the development of the scientific and technical talent of the people of this country and of those who emigrate to it. It is not for me to discuss this matter in further detail. You will observe from the annual report that our Council and those of the Chemical, Metallurgical and Mining Society and the South African Institute of Electrical Engineers

MINING EXAMINATIONS.

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have agreed to form a joint Committee of twelve members to report on this matter, and if this Committee recommends a scheme which in the opinion of the said Councils is a workable one, then the matter will no doubt be brought before the membership of the societies concerned for further consideration. A great deal of spade work is necessary to lay bare the essential factors, and until some concrete proposition is ready for consideration, it is useless to enter into detailed discussion or to attempt to arrive at any final conclusion. My object in referring to this subject at some length has been to arouse interest amongst members so that they may give the matter preliminary thought. We are living in times when momentous decisions are daily being made and when much wrangling and useless debate is voluntarily eliminated in order to get things done. Is it too much to hope that federation of the technical societies of the Rand will be one of the happy outcomes of these strenuous times?

In considering the statistics, it must be borne in mind that more than 70 members are serving their country either in the fighting line or in connection with the production of munitions of war. I would like to take this opportunity of expressing on behalf of the Institution, to all these absent members, the pride we feel in them and our sincere hope that they may shortly return unscathed and victorious. Of those who have fallen it is hard to speak, and I will only say that we shall ever hold their names and memory in

the highest honour. I hope that the Institution, in common with so many other representative bodies, will see fit to establish a memorial to the memory of those of its members who have made the great sacrifice in the cause of national liberty and freedom. I for one would be very glad to have the privilege of participating in presenting such a memorial, suitably inscribed, which would be permanently housed in the headquarters of the Institution.

With these few remarks, I now beg leave to retire from the chair, and in doing so to wish the Institution a most prosperous future. It has been a very real pleasure to me to serve as President under such happy relationships as those which have existed both in the Council Chamber and at our general meetings. The burden of office has been rendered easy by the whole-hearted support and assistance so generously vouchsafed by members of the Council and by the able and cordial manner in which our secretary, Mr. Jago, has carried out his duties. I need hardly assure you that I shall continue to further the interests of the Institution to the best of my ability, but I feel it my duty to give priority to the national work which has fallen to my share as a member of the Scientific and Technical Committee on Industrial Development and Research, work which will no doubt increase in quantity and call for the major portion of such time as I can spare from business. I hope, however, that if the Council will relieve me of Committee work, I shall be able to retain close touch with Institution affairs.

PERSONAL.

The Chamber of Mines has headed the Johannesburg list in response to the special appeal on behalf of Red Cross South Africa with a donation of £1,000.

Mr. James Neilson, the well-known stockbroker, has taken into partnership Mr. Stanley Maynard, who has been so long connected with him in business. In future the title of the firm will be Messrs. James Neilson and Maynard.

Mr. W. Wybergh, formerly M.L.A. in the Transvaal Parliament, and at one time head of the Mines Department in Johannesburg, is in the Pilgrims Rest district on research work, having been appointed by the Union Government to investigate and report upon limestone formations in the Union.

Mr. Thos. Stewart, A.M.I.C.E., Consulting Engineer to the Salisbury Municipality, is in Salisbury in connection with the arrangement of a permanent supply of water to the town. Mr. Stewart, who comes from Capetown, has been constructional engineer for about thirty of the largest water schemes in the Union and has had great South African experience.

The reference in our last issue to the visit of Colonel Dalrymple to Europe should have made it clear that his mission was undertaken at the request of the Government, and that its main object was to look up our men on active service, wherever stationed. Colonel Dalrymple will be afforded every opportunity of fulfilling his task, and his report will be awaited with much interest.

Mr. H. M. Taberer, General Manager for the Native Recruiting Corporation, after a nine weeks' tour of the Union, has informed an interviewer that the labour shortage for the mines is partially accounted for by the fact that the crops were the best for seven or eight years. Recruitment for war service was a small contributory cause. He expected a greater stream of recruits for the mines about the end of July.

The solicitors for Sir George Albu write to the newspapers in regard to a cable message recording certain questions put in the House of Commons by Mr. Hancock, and the replies given by Mr. Roberts. They affirm that the statements

made by Mr. Hancock are incorrect. Sir George Albu first took out letters of naturalisation as a British subject in the Cape Colony on October 27, 1887. He had then been absent from Germany 11 years, and had by the then laws of Germany ceased to be a German subject. No subsequent laws of Germany could thereafter restore his German citizenship, nor deprive him of his British citizenship. Owing to the confusion in the British naturalisation laws (state the solicitors) his letters of naturalisation issued in the Cape Colony did not apply to the Transvaal or England, although imposing all duties of a British subject on him, and therefore in 1911, Sir George Albu, after an interview with Lord Gladstone, then Governor-General, and at his suggestion, took a further oath of allegiance to the King, and received letters of naturalisation issued by the Home Secretary which had effect all over the British Empire. "We have seen both letters of naturalisation, and they are in perfect order," state the solicitors, and the letter concludes: "We are instructed to state that the allegation reported to have been made by Mr. Hancock that Sir George Albu redeemed his nationality in 1913 is absolutely false."

ANSWERS TO CORRESPONDENTS

All enquiries addressed to the Editor must bear the writer's name and full address. We cannot reply to enquiries by letter, but telegrams with replies prepaid will be answered. Correspondents are requested to write their names and pseudonyms distinctly.

"F. H. T."—Your letter is libellous, and would probably land us in a libel action, if printed.

"Shareholder."—The mill is closed down, but the company is not in liquidation. Another effort will be made to open up the property.

"C. T." (Capetown).—The position has not altered since your last letter. Better hold on.

"Anxious II."—The reduction in the dividend is owing to increased working costs due to the war. Outlook now improving, both in regard to labour and development.

"A. T. H."—(1) No. (2) At the end of this year. (3) Almost complete. (4) You should certainly not sacrifice now.

"Barborton."—The company has no Johannesburg office. Better write to the secretary at Bulawayo.

"Investor" (Durban).—The effect of the change should be wholly beneficial.

THE WEEK IN THE SHAREMARKET.

No Improvement—Temporary Spurt in Rooibergs—Prices Irregular.

On Saturday morning prices hardened somewhat, notably in Springs Mines, Van Ryn Deep, Sub Nigels and City and Suburbans. On the other hand, Modder Bs. were a weak feature at the selling price of £7 12s. 6d., which is a loss of 6s. from their best. Leeuwpoots are also decidedly out of favour. In the small stocks there was an active market, with large purchases in Lydenburg Gold Farms. Government Areas stood unchanged. There was a rather more active market on Monday morning. Lydenburg Gold Farms were again bought up at advanced rates. New Modderfonteins were temptingly dangled as a bait at £21 5s. sixty days' buyer's option without meeting with any response. In the afternoon and up to the close the purchase of Lydenburg Farms continued. On Tuesday morning prices were irregular, the Modder trio together with Springs and Van Ryn Deep weakened, while Government Areas and Sub Nigels were better. Lydenburg Farms were active, but after sales at 8s. fell back to 7s. 9d. sellers. Rooibergs recovered lost ground, and from sellers at 7s. 6d. came buyers at the price immediately the call was over. The market weakened all round on Wednesday morning, the one exception being Wolhuters. The Lydenburg Gold Farms and Rooiberg spurs both died away, the latter being particularly slack. Prices were irregular on Thursday. Government Areas and Modder Deep which steadily held their own during the depression both declined, while Modder Bs., Springs and Van Ryn Deep, all weak features since the last report, unexpectedly firmed up. Rooibergs and Lydenburg Farms again eased off. Wolhuters had a further small advance. Very little has been doing in outside stocks. Monteles ranged from 65s. 6d. to 56s. 3d. in odd lots; South Van Ryns from 7s. 5d. to 7s.; and Erf Bloems 6s. 6d. to 7s. There were also sales in New Farms at 1s. 9d.; Phoenix at 10d.; and Invicta at 22s. 6d. Buyers of Rietspruits, 2s.; Union Tins, 3s. 3d., sellers 3s. 6d.; Henderson's Options, buyers 1s., sellers 1s. 1d.; Modder Easts, buyers 19s. 3d., sellers 20s.; Options, buyers 7s. 3d., sellers 7s. 9d.

Springs were in active demand on Thursday afternoon. There was a good deal more life in the market on Friday morning. Springs were bought up in large quantities at 58s. 3d. and 58s. 6d., closing buyers at the higher figure. The Modder trio were also lively with sales: Bs. at yesterday's price, Deep at £6 16s. and £6 16s. 6d., New Modders at £21 2s. 6d. ex London, and £21 5s. sixty days' buyer's option. Other sales: Village Mains, 17s.; Van Ryn Deep, 65s. 6d.; Sub Nigels, 25s. 6d.; Rand Selections, 74s.; Main Reefs, 16s.; all closing buyers at the figure. Government Areas, after sales at 61s. 9d., came 62s. buyers directly after the call. Bantjes were badly hammered, and after sales at 4s. 6d. closed at 4s. 4d.

	Fri., 22nd.	Sat., 23rd.	Mon., 25th.	Tues., 26th.	Wed., 27th.	Thurs., 28th.
Coronation Collieries	33 0*	33 0*	—	—	—	33 0*
Crown Diamonds	—	1 0*	—	1 0*	1 0*	—
Crown Mines Debentures	£93+	£95*	£99+	£99+	—	—
Daggafonteins	—	22 6+	—	22 9+	21 9*	—
Durban Roodepoots	—	—	15 0+	—	—	15 0+
Durban Road. Deep	8 0*	—	—	—	—	—
East Rand Centrals	10 0*	10 0*	10 0*	10 0*	10 0*	10 0*
East Rand Coals	2 0	2 0*	2 0*	2 0*	2 0	1 11*
East Rand Deep	0 11+	0 11+	0 11+	0 11+	—	0 11+
East Rand Mining Estates	14 0+	14 0+	14 0+	12 0*	14 0+	12 0+
East Rand Props.	6 0*	6 6+	—	5 6*	5 0*	—
East Rand Debentures	£60*	£62*	£62*	—	£62*	—
Eastern Gold Mines	1 0*	1 0*	1 0*	1 0*	1 0*	1 0*
Frank Smith Diamonds	—	3 4*	3 4*	3 5	3 4*	3 5
Geduld Props.	37 0	36 9*	36 0*	36 0*	36 0	36 0
Glencairns	—	—	1 0*	—	—	—
Glencoe Collieries	10 3*	9 6*	10 3	9 6*	9 6*	—
Glynn's Lydenburg	—	—	16 3*	—	16 0*	—
Government Areas	61 3	61 6	61 9	62 0*	62 0*	61 9
J'burg Board of Executors	—	—	—	—	—	20 0*
Jupiters	4 6*	4 11	4 11	4 7*	5 1*	4 9*
Knight Centrals	5 3	5 3*	5 4	5 0	4 8*	4 9
Knights Deep	—	—	—	—	—	17 0+
Lace Props.	4 6*	4 6*	4 8	4 7*	4 7*	4 7*
Langlaagte Estates	—	—	17 0	16 6*	—	16 9*
Leeuwpoot Tins	13 6+	12 3*	13 0*	13 0*	14 0+	—
Luipaardsvlei Estates	—	—	3 6*	—	3 6*	—
Lydenburg Farms	—	6 11	7 3	8 0	7 6	7 2
Main Reef Wests	3 9*	4 0+	—	4 0+	3 9*	3 10*
Meyer and Charltons	—	—	—	—	—	103 9*
Middelvlei Estates	1 0*	—	—	—	1 0*	1 0*
Modderfontein B.	154 0+	151 3*	151 0*	150 6*	152 6*	153 0
Modder Deep Levels	137 0*	137 0*	137 6	136 6*	136 0*	137 0*
Natal Navigation Colls.	—	18 6*	19 6+	—	18 0*	18 6*
New Boksburg	1 4	1 4+	1 1*	1 4+	1 0*	1 1*
New Eland Diamonds	28 3*	28 0*	29 0	28 0*	28 7*	28 0*
New Era Cons.	9 1*	9 1*	9 0*	9 3	9 0*	9 1
New Geduld Deep	6 3*	6 4*	6 4*	6 4	6 4*	6 4*
New Kleinfonteins	16 6	16 6*	16 6*	16 9*	16 9*	16 9*
New Modderfonteins	415 0*	415 0*	420 0*	412 6*	415 0*	—
New Rietspruits	0 9	—	—	—	—	—
New Unifeds	—	12 0+	11 0+	11 0+	—	11 0*
Nigels	2 9*	2 6*	2 6*	2 6*	2 6*	2 6*
Nourse Mines	20 6	20 6*	20 6*	20 6*	20 6	20 0*
Pretoria Cements	88 0*	88 0*	88 6*	88 6*	87 6*	87 6*
Prinees Estates	1 6*	1 6*	1 6*	1 6*	1 6*	1 6*
Rand Collieries	2 1*	2 2*	2 3*	—	—	2 2*
Rand Klips	9 3	9 0*	8 9*	9 0*	8 10*	9 0
Rand Nucleus	—	1 4*	1 4*	1 4*	—	1 4*
Rand Selections	74 0*	74 0*	74 0*	74 0*	74 0*	73 6*
Randfontein Deep	4 9	4 9*	4 9*	4 9*	4 6*	4 9*
Randfontein Estates	12 9*	12 9*	12 9*	12 9*	13 0	12 9*
Roberts Victors	8 0+	—	—	8 0+	—	8 0+
Rooiberg Minerals	6 6	6 6*	6 9	7 4*	7 0	6
Roodepoort Uniteds	—	5 6*	5 6*	—	5 6*	—
Rose Deep	17 0*	17 0*	—	—	—	—
Shebas	1 0+	0 9*	0 10*	0 10*	1 11*	0 11*
Simmer Deep	2 0*	2 0*	2 0	2 0*	1 10*	1 9*
S.A. Breweries	—	29 0+	—	—	29 0*	—
S.A. Lands	4 3	4 3*	4 3*	4 8	4 7	4 6
Springs Mines	57 9*	58 9*	58 6*	58 0	57 6	58 0
Sub Nigels	25 3	25 3	25 3*	25 0	25 3*	25 3*
Swaziland Tins	26 0*	26 6	27 0*	27 0*	27 0*	27 0*
Transvaal Lands	—	—	12 6*	13 0*	13 0*	13 0*
Transvaal G.M. Estates	—	—	12 6*	13 0*	13 0*	13 0*
Van Ryn Deep	65 6	66 0	65 6	65 0	64 6	65 3*
Village Deep	25 0+	24 0*	25 0+	25 0*	—	—
Village Main Reefs	15 6*	—	—	—	16 0*	15 0*
West Rand Cons.	—	7 0+	—	7 0+	7 0+	—
Western Rand Estates	—	—	1 0*	—	—	—
Witbank Colliery	45 0*	45 0*	—	—	—	—
Witwatersrand	40 0*	—	42 0*	42 6+	—	42 6+
Witwatersrand Deep	14 0*	14 0*	14 0*	14 0*	14 0*	14 0*
Wolhuters	8 0	8 0*	8 0*	8 2*	8 3	8 6
Zaaiplaat Tins	6 0	5 11*	5 10*	5 11	5 11	6 1+

There were sales during the week of Union 5 per cents. at £100 6s. 7d.

*Buyers. †Sellers. aOdd lots. bEx London.

Glynn's Lydenburg.

Results for the month of May: Tons crushed, 4,196, yielding 2,018.8 fine ozs.; estimated value of month's output, £8,423; estimated profit for the month, £3,500.

	Fri., 22nd.	Sat., 23rd.	Mon., 25th.	Tues., 26th.	Wed., 27th.	Thurs., 28th.
African Farms	7 9*	8 0+	—	8 0+	7 10*	7 11+
Apex Mines	6 10*	6 10*	6 9*	7 0	6 0A	7 3*
Aurora Wests	—	15 6+	15 6+	—	—	13 0*
Bantjes Cons.	6 2	6 2*	6 1*	5 9*	5 7*	5 3
Bantjes Cons.	6 2	6 2*	6 1*	5 9*	5 7*	5 3
Brakpan Mines	98 6*	98 6*	100 0	99 0*	98 6*	98 6*
Breyten Collieries	—	—	17 0+	17 0+	—	—
Brick and Potteries	—	—	—	5 0*	—	5 0*
British South Africa	—	—	—	—	—	10 0*
Bushveld Tins	0 4*	0 3*	—	—	—	0 3*
Cinderella Cons.	—	6 0+	6 6+	6 0+	—	—
City and Suburbans	28 6*	29 3*	29 0*	29 0*	28 9*	29 0*
City Deep	—	78 6*	79 9	79 0*	78 6	77 0*
Cloverfield Mines	—	8 1*	—	7 11*	8 0*	8 0
Clydesdale Collieries	—	—	12 6*	12 6*	—	12 6*
Concrete Construction	—	0 6*	—	—	—	—
Cons. Investment	18 0+	—	18 0+	—	16 6*	—
Cons. Langlaagte	—	—	23 0	23 0+	22 9	22 9+
Cons. Main Reefs	—	15 0*	16 3	15 6*	15 6*	15 9*
Cons. Mines Selection	23 6*	23 9*	23 9*	23 9*	23 9	23 9*

*Buyers. †Sellers. aOdd lots. bEx London.

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SHEFFIELD.—22, High Street.
SOUTHAMPTON.—46, High Street.

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CAPE TOWN.—Norwich Union Buildings, St. George's Street.
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Engineering Notes and News.

A ROMANCE OF ENGINEERING ACHIEVEMENT.

To some engineering firms the present war has been a veritable romance of enterprise and achievement. Everybody knows how the demand for shell has outstripped all previous imaginings and how inadequate our pre-war supplies were found to be when viewed in the light of present knowledge; but only those who went through it can realise the strain of those days in 1914 in the effort to meet an overwhelming demand for shell before the general cry of munitions was raised, and the burden of the few was shared by the whole resource of the country. It is difficult to imagine what would have happened but for the efforts of a few firms such as Hadfields, of Sheffield. They maintained the supply of munitions until the whole country was roused to the necessities of the occasion, and then, by placing the whole of their experience and resources at the disposal of the Empire, were able to act as centres of instruction to all those whose aid was called in to meet the rapidly increasing demand for shell and munitions of all descriptions. Before the war Hadfields were the largest shell makers in the country, their speciality being the large calibre armour piercing shell, of which their output was probably the largest in the world, a fortunate fact this for our sailors, who amid a general shortage have never lacked for shell. The demands for the equipment of new ships, the expenditure of actions of bombardments and the large increase of war reserves have all been met by a corresponding increase of production, and the equipment of new plant for the purpose. To meet the demands of the army for high explosive shell, Hadfields in the autumn of 1914 commenced the construction of specialised plants for the various calibres required, and whilst these were building, turned over large sections of their general plant to shell making. It was largely due to these efforts that our army was able to maintain itself during the winter of 1914 and the ensuing spring when the first of the specialised plants began to produce shell four months after the ground had been broken. From that date progress has been continuous. Plant after plant has been built and organised until to-day the pre-war output, then the largest in the country, has been multiplied twenty times. One of the most interesting of these plants is run as a national factory, designed, built and equipped by Hadfields with Government capital and managed by them on behalf of the Ministry of Munitions. Hadfields' contribution to the war resources of the Empire is not confined to shell; they are making large numbers of trench howitzers, components of field gun carriages and of the celebrated tanks; while their contributions to the defensive side of warfare includes their well-known "Era" steel armour, bullet proof sheets, and last but not least, the steel helmets and body shields which have played such an important part in the war. These latter, as is well known, are made of their "Resista" steel, and it is no exaggeration to say that thousands of our men owe their lives to the invention of Sir Robert Hadfield and the products of Hecla and East Hecla works.

The opinion of those in the Dominions Overseas regarding the training at St. Dunstan's Hostel for Blinded Soldiers and Sailors is very clearly evinced by this statement in the Report of the Hostel for the year ending March 31st, 1917. "It is interesting to note that the Australian and Canadian authorities use every inducement to persuade blinded Australian and Canadian soldiers to remain in England for a sufficiently long time to acquire practical training at St. Dunstan's. There are in the Hostel, at the time of writing this report, blinded soldiers from Canada, Australia, New Zealand, South Africa, Tasmania, and Newfoundland."

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The Sheba G.M. Co.

The following are particulars of the above mine for the month of May:—Crushed, 6,706 tons, yielding 1,635 ozs.; working costs, £7,436; development, £1,650; estimated loss, £2,579.

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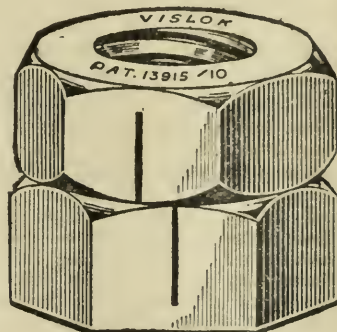


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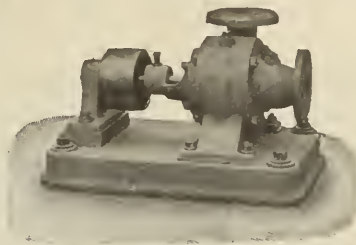
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THE WEEK IN THE MINING MATERIAL AND ENGINEERING TRADES.

The Pooling Question and Its Effects—The Shipping Problem and Lower Rates—£1,000,000 a Month Spent on Transvaal Mining Stores.

THE question of the "pooling" of mine stores has been the outstanding feature of the week. A merchant who heard the Chamber of Mines President, Mr. E. A. Wallers, speak on the subject, remarked that the real position was, the merchants could not obtain oversea supplies, but by the co-operation of the British and Union Governments the Chamber of Mines could ensure sufficient to keep the producing mines running under all circumstances. He further said that the scheme was a commonsense one, but naturally it was unfortunate it had to be brought into operation, but, he continued, hitherto people here through having had such a good time never realised there was a war on, and now they must feel that the great war has become an important factor in the world's affairs, and it is now being brought home to Johannesburg. It must be admitted that the President's speech was a most frank and candid one, both as regards the present and future dealings with the merchants. On the whole, the pooling has been taken very well, with very few adverse criticisms, which are only natural when a radical change has to be suddenly brought about. It is early to forecast what will eventually happen, as Mr. Wallers recognised that it was impossible to see every detail clear at the moment, therefore the Chamber would welcome any suggestion from the merchants.

THE IMMEDIATE EFFECTS OF POOLING.

In the ordinary process of levelling up and levelling down each mine's stores to a six months' consumption, it will mean very little buying from the merchants. For example, it is said that one mine has a supply for seventy months of a certain line in everyday use; and again, at a stocktaking for December last, a mine had a ten years' supply of another line. A little digression may be allowed

to assist in explaining this superabundance, because when a great railway company in England once tackled the subject of stores and stationery, very similar things happened, more particularly in stationery, where it had been the habit to order a hundred forms for a return only required monthly. Much heartburning occurred on that particular railway, but nevertheless a saving of £40,000 resulted in the year's expenditure on stores and stationery. Whilst this averaging throughout the mines is taking place there will be very little welcome given to Reef travellers, therefore they will be adversely affected. Another small community, who have grown up on the fringe of the industry, are the speculators who are shrewd enough to anticipate events and so buy material and stores to hoard up for a future profit. Merchants cannot for the time being sell to such, because of providing the necessary papers which must be supplied when re-ordering. On the other hand, the second-hand dealers will benefit by the hard and fast restrictions being placed on the handling of new goods. It also may advance the oversea recruiting, as a group of young fellows were heard to remark that some of them would have to join, particularly if they could get an allowance from their firms. These young fellows were shrewd enough to recognise that such

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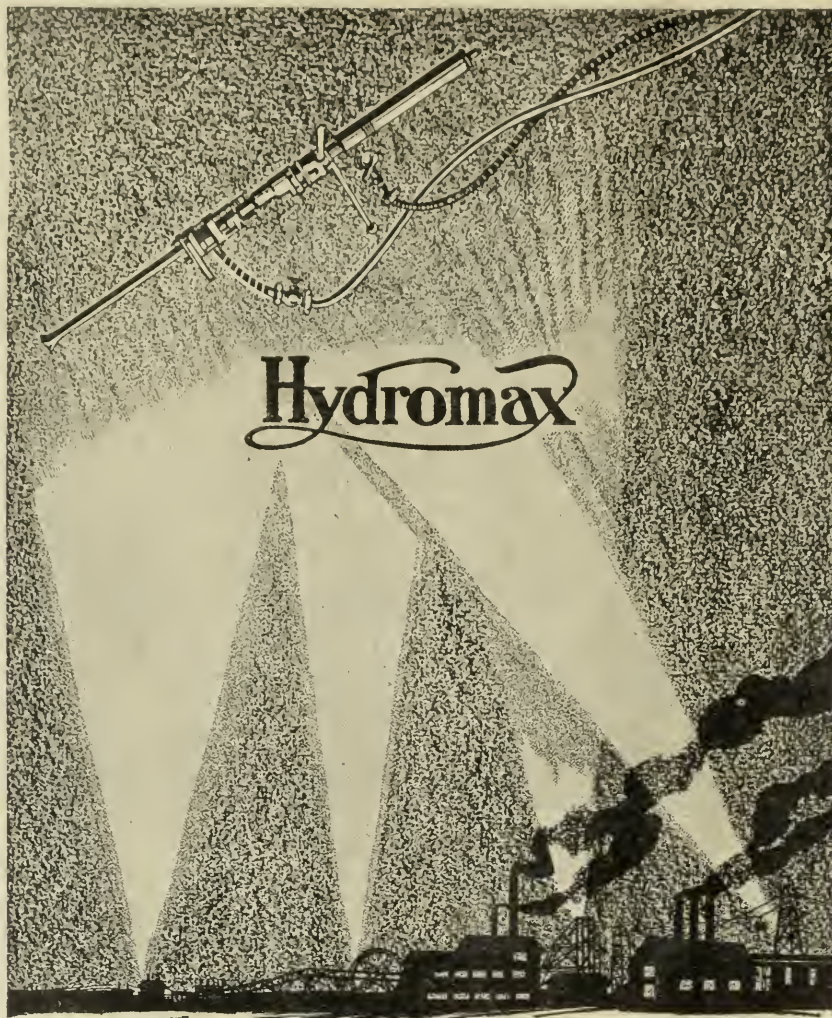
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radical changes must of necessity mean a re-arrangement of staff, certainly for the next few months; however, they seemed very happy over it.

£11,787,597 SPENT BY TRANSVAAL AND £13,995,258 BY
SOUTH AFRICA.

The Transvaal mining industry spent practically a million a month on stores for the year 1916. Hence it is not surprising that apprehensions have been felt about the resumption of pre-war conditions. However, the President of the Chamber of Mines dealt fearlessly with that subject. He asked what has been the position since the war commenced? "We gave the merchants an undertaking that we would continue buying our supplies in the ordinary way, through the merchants. We have maintained that undertaking to the fullest extent; we have bought freely, and the merchants have had a most prosperous time. And what is the position now? It is this: we are faced with abnormal conditions to a greater degree than ever, but still we have maintained that same undertaking that, notwithstanding everything, we shall continue to buy our stores locally, and I renew that undertaking now, under the same conditions with which it was originally made." As previously remarked, this undertaking coming from the President of the Chamber of Mines, has been taken and accepted in good faith by the leading mining merchants. Now there is the merchants' side. In pre-war days our market was so great and attractive that it brought forth mining material from all parts of the world, and owing chiefly to the intense concentration of the Commercial Exchange, the competition was so keen that it paid the mining industry to purchase locally, because the merchants carried the stocks instead of, as now, the mines, sometimes to the disadvantage of their financial affairs. An immense selection is always brought to their very doors and a quarter of a dozen can be requisitioned for instead of a gross. They can return material if not

exactly as ordered, with various other advantages. In the history of the Rand endeavours have been made to import direct, but from a business point of view as well as that of an economic one, it pays the mining industry to purchase in our free and open market. Free of pools and corners, although these are occasionally tried, the biggest ready-money market of the world has such a way of attracting competition from all parts that it keeps it always on the alert to catch a portion of that million a month which must be distributed. Just one word as regards Kimberleyising the Rand: the pioneers will vividly remember that there is only one company at Kimberley, and whether it wished it or not, it must dominate every nook and corner of the place, in the same way as the beer industry at Burton, the biscuit industry at Reading, and so forth. This great industry of the Transvaal has become too large and varied, with its ever-increasing areas of gold and base metals, to settle down into the Kimberley stage.

COMMERCIAL EXCHANGE.

Business has received a decided check owing to the "pooling," and members cannot for the moment tell exactly what is likely to happen, except that they have reconciled themselves to a very quiet time. The pronounced opinion, however, is that by an averaging of the stocks on the mines now, instead of after the war, it will prevent a lot of loss to the carrying merchants. Some may remember, when the first railway got to Johannesburg, that prices fell rapidly, much to the consternation of many a merchant with heavy stocks. According to a Parliamentary debate, Australian rails are likely to be used on the Klerksdorp-Fourteen Streams section, at £20 per ton landed in South Africa.

LOWER SHIPPING RATES.

It is reported that the American Congress intends to bring about a big reduction in ocean shipping rates, on the ground that American shipowners must come into line with the Allies, whose Governments have commandeered 90 per cent. of the cargo-carrying capacity of their national shipping. It is believed that the United States Government

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intends not only to appropriate all the cargo space required at its own price, but to force all steamship owners to lower their charges for carrying goods for private firms. In connection with shipping, the question was brought up at the last Pretoria Chamber of Commerce meeting that 7,750 casks of cement were delivered from overseas to Capetown and Durban. Hence the speaker, who brought up the subject, remarked that the tonnage could have been better employed. Special enquiries were made at the Johannesburg shipping offices, when it was ascertained that the cement may have been used as a fill up, as no other cargo was available at that particular port of sailing; also there are many causes for these apparent vagaries, now that the English coasts are infested with submarines. This is another very good reason why the British Government's assistance is necessary to regulate shipping and keep our mines supplied with essentials. In these enquiries it was ascertained that the mail boats are not always full up with

cargo in coming out to South Africa, and the manifest of cargo of the last arriving boat gave an exceptionally large number of small consignments, and unless one inspected the list, it could hardly be realised. However, the ships must come from England for the purpose of fetching goods from this country for there. For instance, 15,000 tons per month of war essentials has been arranged to be taken from South Africa to England, France, etc., as apart from maize and foodstuffs. The essentials chiefly consist of wattle bark, hides, copper ingots, asbestos, corundum ore, lead, etc. The fact of imports and exports from Great Britain being of great importance, was especially emphasised by the shipping people, not only to balance the outward and inward cargoes but to balance the financial ledger as far as possible.

VARIOUS COMMERCIAL ITEMS.

The rumour that Lloyds insurance would be taken over by the British Government has been dispelled. It appears that a large number of vessels have recently been posted as missing, and difficulty has arisen in arriving at a decision as to whether the loss falls on a British Government war risk policy or on a marine (Lloyds) policy. In discussing this matter amicably by both sets of insurers, no doubt the rumour emanated. The timber trade is on velvet, as they have not to run the gauntlet of the priority certificate problem, as they purchase in Sweden and the ships have a direct route to the Cape. By the way, the priority certificates are a separate matter from the Chamber of Mines, but space will not allow of dealing with that important subject this week.

REVISED PRICE LIST.

Iron, imported, $\frac{1}{4}$ round, 40s.; $\frac{1}{2}$ up to 1 in., 37s. 6d. to 50s.; 2 in. to 6 in., 30s. per 100 lbs. Ditto, square, $\frac{1}{4}$ up to 1 in., 30s. to 45s.; $1\frac{1}{8}$ in. to $2\frac{1}{4}$ in., 25s. to 30s.; $2\frac{1}{2}$ in. to 5 in., 25s. Flats, 3-16 in., 40s.; all from $\frac{1}{4}$ in. up, 50s. Angles, $\frac{1}{4}$ in. to 3-16 in., 37s. 6d. to 40s., all sizes; $\frac{1}{4}$ in., 37s. 6d.; 5-16 in. to $\frac{3}{4}$ in., 35s., excepting 5 x 4 x $\frac{5}{8}$ in.; mild steel bar, $5\frac{1}{2}$ d. lb.; drill, $7\frac{1}{2}$ d. lb.; steel plates, 10 ft. by 4 ft. by 1-16 in., 50s.; $\frac{1}{4}$ in. by 3-16 in., 50s.; $\frac{1}{4}$ in. to 5-16 in., 40s. to 50s.; $\frac{3}{8}$ in., up to 40s.; 10 ft. by 5 ft. by 1-16 in., 45s.; $\frac{1}{4}$ in. and 3-16 in., 42s. 6d. to

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Timber: Deals, Baltic, 9 x 3, short and medium, 1s. 3d.; longer lengths, 1s. 3 $\frac{1}{2}$ d. (Oregon, 1s. 1d.); flooring, 4 $\frac{1}{2}$ x $\frac{3}{4}$ and 6 x $\frac{3}{4}$, 7 $\frac{1}{2}$ d. to 7 $\frac{3}{4}$ d. per sq. ft.; do., 4 $\frac{1}{2}$ x 1 $\frac{1}{2}$, 9 $\frac{1}{2}$ d.; and 6 x 1 $\frac{1}{2}$, 9 $\frac{1}{2}$ d.; ceilings, 6 x $\frac{1}{2}$, 4d. to 4 $\frac{1}{2}$ d. per sq. ft.; Oregon, 4 x $\frac{1}{2}$, 5d.; pitch pine, 8s. 6d. per cub. ft.; Oregon 6s. 3d. to 6s. 6d. per cub. ft.; clear pine, $\frac{1}{2}$ in. x 12 in., 8 $\frac{1}{2}$ d. per ft.; 1in. x 12in., 9d. to 10d.; teak, small planks, 14s. 9d. per cub. ft.; do., large, 15s. 6d.; jarrah, 9s. 6d. per cub. ft.; poplar, 1 in. x 12 in., 11 $\frac{1}{2}$ d.; scantling, 1s. 2 $\frac{1}{2}$ d. to 1s. 3d. per ft., 3 x 9.

Bricks, cement, lime, etc.: Pretoria Portland Cement, 9s. 3d. per bag; 8s. 3d. truck loads; lime, white, unslaked, 7s.; truck loads, 6s.; slaked, do., 5s.; blue, 3s.; plaster lime, 4s.; bricks, stock, delivered, 37s. 6d. to 45s.; wire cuts, 50s. to 70s., pressed 70s. to 80s. per 1,000, road transport difficult to obtain; salt and white glazed bricks, £27 10s. per 1,000; roofing tiles £25 per 1,000; Roman do., £12 $\frac{1}{2}$; glazed tiles, 10s. 6d. to 17s. 6d. per yard; paving cement tiles, 8s. 6d. per yard laid; reinforced concrete columns, 6 ft. plain, 22s. 6d., fluted, 24s.; fireclay bricks, £7 $\frac{1}{2}$ to £9 $\frac{1}{2}$ at kiln, per 1,000; clay chimney pots, 36s. to 70s., according to height, 12 in. to 18 in. per doz.; fire clay, 37s. 6d. per ton on rail.

Oils, paints, lead, oxides, glass: Linseed, raw and boiled, 40s. per five gallons; white lead, 85s. to 95s. per 100 lbs. (big lots are not quoted); turpentine, 54s. 2/4 gallons; 10/1, 59s. 6d.; oxide in oil, 36s. per 100 lbs.; dry oxide, 22s. 6d. to 27s. 6d.; S.A. crude oxide, 12s. 6d.; linseed oil putty, 4s. 9d. per 12 $\frac{1}{2}$ lbs.; bladders, 36s. casks of 100 lbs.; grease A.F. axle, 26s. 6d. to 28s. 6d. per 100 lbs.; tallow, 1s. per lb.; White Rose paraffin, 18s. 3d. 2/5; Laurel do., 18s.; petrol, 29s. 6d. 2/4; motor oil, 7s. to 7s. 9d. per gall.; engine lubricating oils, 27s. to 40s. per case; cylinder, 26s. 6d. to 42s. 6d.; paints in tins, 1s. per lb. British plate-glass, $\frac{1}{4}$ in., 3s. 9d.; do., mirror, 4s. 6d.; window, 16 oz., 1s. to 1s. 3d. foot.

Chemicals: Mercury, £50 per 75 lb. bottle last sale, but now no definite price; bichromate potash, 5s. 6d. lb.; chlorate, 4s. 6d. per lb.; permanganate, 14s. per lb.; alum, 5d. lb.; carbolic acid, 7s. 6d. lb.; borax, 92s. 6d. 100 lbs.; cyanide soda, 1s. 5d. lb.; hypo, 7d. lb.; acetate lead, 77s. 6d. 100 lbs.; litharge (assay), 72s. 6d., (commercial) 58s. 6d. 100 lbs.; zinc sheets and blocks, 1s. 6d. lb.; plumbago crucibles, 5d. per number.

Electrical Goods: Lamps, high volts., British, Holland & American, 28s. to 29s. wholesale, and 42s. to 48s. dozen

retail; carbon lamps, 10s. 6d. dozen; pure rubber flex, 6d. to 8d. per yard; 3/20 coils of wire, 30s. to 33s.; do., 3/22, 23s. 6d.; tubing, 18s. to 20s. 100 ft.; keyholders, 6s. to 7s. 6d. each; round blocks, 3 $\frac{1}{2}$ in., 3s. 6d. doz.; lamp holder cord grips, 13s. 6d. to 15s. per dozen; switches, 5 amp., 24s. to 30s. doz.; British glass shades, 30s. to 40s. dozen; porcelain shackles, 15s. to 18s. dozen; do., bobbins, 12s. 6d. to 14s. per 100; cleats, 20s. per 100; P.O. insulators, 18s.; motor, 3 h.p., about £35 to £37, new.

In consequence of the daily, and even hourly, variation in prices, the Editor will answer reply-paid telegrams to verify any quotation in our list.

S.W. Diamond Fields.

The returns from the diamond diggings of the South-Western Transvaal for the month of May show that, thanks to another large output from Itale, the total has again reached a very substantial figure. The returns for the first five months of this year have been:

	Carats.	Value.
January	3,449 $\frac{3}{4}$	£22,047 13 0
February	3,679 $\frac{1}{4}$	21,911 5 0
March	4,135	26,983 3 6
April	6,036	40,731 7 0
May	7,610 $\frac{1}{4}$	54,959 19 3

The producing areas numbered 34, of which 21 are situated in the Bloemhof district, 11 are in the Wolmaransstad district, and two are in the Potchefstroom district. The chief producers are as follows:

	Carats	Value.
Itale	5,305 $\frac{1}{4}$	£38,444 0 0
Kameelkuil	509 $\frac{1}{2}$	4,371 6 0
London	467 $\frac{3}{4}$	3,242 6 3
Bloemhof	319	2,695 12 0
Klipkuil	122 $\frac{1}{2}$	916 15 0
Blesbokfontein	151 $\frac{1}{4}$	887 2 6
Christiana	74	595 10 0
Plessisdam	94	534 0 0
Mimosa	78 $\frac{1}{2}$	512 15 0
Leeuwfontein	80 $\frac{1}{2}$	481 7 6
Mooifontein	63	444 5 0
Goedehoop	48 $\frac{1}{2}$	379 10 0
Panfontein	32	290 5 0
Koppiesvlei	34 $\frac{1}{2}$	255 10 0
Syfergat	37 $\frac{1}{2}$	175 10 0
Schweizer-Reneke	25	140 15 0

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228. American Seedtape Company.—Improvements in seed packages.
229. Jens Jakob Lassen and Vilhelm Frederick Hjort.—Improvements in or relating to the softening and purification of water.
230. Charles Grant Campbell Christie.—Improvements in and relating to sealed containers to facilitate the opening thereof.
231. James James.—An improved method and means for neutralising or preventing the formation of poisonous gases or products from nitro or other explosives or from burning fuse during operations of blasting.
232. Richard Rapson Oliver.—Improvements in or relating to automatic couplings.
233. Ernest Moss.—Improvements in and relating to postal flanking machines.
234. Arthur Gordon.—Improved method for precipitating gold.
235. The Wireless Hinge Manufacturing Co., Ltd., and George William Berry.—An improved method of and apparatus for hinging lids of tins, canisters and like receptacles.
236. Willem Hendrik Maute.—Banjo capotasto.
237. Aloph Landman Erasmus.—An automatic skid-brake for use with mine skips.
238. Harry Joseph Rabone.—Improvements in flexible steel or metal measuring tapes.
239. Matthew Sinclair Stevenson.—Improvements in or relating to pneumatic tyres.
240. William Wesley Coe and William Wesley Coe, Junr.—Improvements in or relating to the production of dyes or stains.
241. Max Wallerstein and Leo Wallerstein.—Process of producing beverages.
242. Max Wallerstein and Leo Wallerstein.—Extract having the flavour and aroma of malt and process of producing the same.
243. John Newton Wilbur and John George Mohrweis.—Improvements in moving machines.
244. Askin Morrison Nicholas.—Improved process of separating liquids from solids.
245. Alexander Gemmel.—Improvements in deep well pumps and the like.
246. Amos Josephus Crouch and Philip Richard Cross.—A knife cleaning board.
247. Gogu Constantinesco and Walter Haddon.—Improvements in mechanical wave transmission of power.
248. Gustav Honegger.—Improvements in governing devices for plunger pumps.
249. John Hart and Edward Hector Lonsdale Hart.—Improvements in acetylene lamps.
250. William Stokes Taft and Reginald George Silver Chandler.—Improvements in means or devices for repairing punctures in pneumatic tyres.
251. Askin Morrison Nicholas.—An improved apparatus for separating liquids from solids.
252. Clovis d'Origny Maimon.—Improvements in spraying apparatus.
253. Edward Arthur Turner and Harry Morrell.—Sectional sleeve pipe gravity stamp guide.

The Property Market.

During the week, Messrs. Arthur Meikle & Co., Ltd., offered a number of properties and a farm for sale by public auction to a good attendance. The following prices were realised:—Stand 681, Mayfair, with buildings, £880; Stand 1376, Mayfair, vacant, £60; Stand 712, Vrededorp, with buildings, £700; Stand 451, Rosettenville, vacant, £6; 3,000 morgen, Bechuanaland, at 1s. 9d. per morgen, £262 10s.; Lot 338, Parktown North, vacant, £40; total, £1,948 10s.

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LIMITED

PAYMENT OF DIVIDEND.

NOTICE IS HEREBY GIVEN that a Dividend of 6 per cent. per annum has been declared for the year ended 31st March, 1917, of which the Interim Dividend declared in October last absorbed Six Shillings per share, leaving Six Shillings per share available for the final distribution.

The Dividend will be payable to all Shareholders registered in the Books of the Company as at close of business on 16th June, 1917, and to holders of Coupon 37 attached to Share Warrants to Bearer.

Dividend Warrants will be despatched to South African Registered Shareholders from Pretoria, and to European Shareholders from London Office, on or about 27th June.

Holders of Share Warrants to Bearer are informed that Coupons may be deposited at any of the Bank's Branches, and will, upon verification by Head Office, be paid on or after 27th inst.

By Order of the Board of Directors,

C. P. MATHEWS, Secretary.

Pretoria, 23rd June, 1917.

The Langlaagte Estate and Gold Mining Co., Ltd.

(Incorporated in the Transvaal.)

DIVIDEND No. 53.

Declaration of Interim Dividend.

NOTICE IS HEREBY GIVEN that an Interim Dividend of 5 (Five) per cent. has been declared for the six months ending 30th June, 1917, payable to shareholders registered on that date. Warrants in payment of the dividend will be posted to South African shareholders from the Head Transfer Office, 610-2, Consolidated Building, Johannesburg, and to European Shareholders from the London Transfer Agency, 30-31, St. Swithins Lane, London, E.C., as soon as possible after receipt of the transfer returns to the above date from the respective Offices.

DIVIDEND ON BEARER SHARES.

COUPON No. 42.

Holders of Share Warrants to Bearer are hereby notified that they will receive payment of the Dividend on presentation of Coupon No. 42, which is payable at the London Transfer Agency as above, or negotiable with their Paris correspondent, Monsieur James Clark, 46, Rue de Provence, Paris, on or about the 17th August, 1917.

Coupons must be left four clear days for examination.

The Transfer Books will be closed from the 1st to the 10th July, 1917, both days inclusive.

By Order,

J. H. TILLEY, Transfer Secretary.

Head Transfer Office,
610-2, Consolidated Building,
Johannesburg, 25th June, 1917.

Printing, Bookbinding, Account Books, Tracing Cloth, Transfer Paper, Drawing Paper, Ferro Prussiate, Ferro Gallic, Indian Inks, Rubber Stamps, Stationery of all descriptions, Draughtsman's and Surveyor's Requisites.

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Company Meetings.

RAND MINES, LTD.

The twenty-second annual meeting of shareholders in Rand Mines, Ltd., was held on June 27 in the Board-room, Corner House. There were present Messrs. E. A. Wallers (chairman and managing director), H. A. Rogers, E. J. Renaud, F. Raleigh, C. Distel, F. C. Dumat, J. L. Jourdan, H. C. Boyd, H. A. Read and S. C. Steil, secretary.

The Chairman said: Gentlemen,—Having in mind the natural continuous increase in these times in the cost of production on the mines of these fields, you will not have been surprised to find, when studying the report and accounts for last year, that our ordinary income, which consists mainly of dividends received from our extensive shareholdings, was £55,915 less than for 1915. The year's profit of £953,180 was, however, some £66,000 more than the previous year, due to a somewhat increased profit being derived from the sale of shares and added receipts on account of sundry revenue, combined with a reduction in administration and other charges. Two dividends of together 150 per cent. were distributed, absorbing £797,248 2s. 6d., and we invested during the year £142,245 net in property and shares. Finally, as you will see, we carried forward to this year the sum of £334,091, which is £13,802 greater than we brought forward the previous year. Our cash position was, therefore, a little further strengthened, which is always a desirable feature. I would say here that the dividend declared for the current half-year is also 75 per cent., and as a matter of interest would add that exclusive of this last declaration the total distribution to the shareholders of this corporation since its inception now amounts to just under thirteen million pounds. Before completing this brief consideration of the balance sheet, I would refer to a change of some importance that has occurred in the form in which it is presented. You are aware that our shareholdings as a whole stand in our books at a figure vastly below their value at actual market prices, and in individual cases, therefore, where the book figures were greater than the market value we have not hitherto written those shares down, because of the very great surplus that existed as a whole. We have now altered that method and every shareholding that stood in the books at a figure in excess of the market value has been written down to the market value. On the other hand, all those shareholdings that have always stood in our books very much below market value remain as they were. At the same time we took our share premium account, together with the very large amount of money that had been appropriated from profits during a period of years for reinvestment and merged them into a general reserve. This fund, as you will observe, was approximately £3,000,000

at the 31st December last, after providing for the depreciation to which I have referred and also a depreciation of £100,000 that we thought it well to write off the book value of our reservoirs and pumping plant, which, I may add, remain a most valuable asset.

Balance Sheet.

In contemplating our balance sheet, you will bear in mind, therefore, that we have two reserves to our credit. This obvious one of approximately £3,000,000 which I have just mentioned, and the other, almost equally obvious, although not stated, that results from the fact of your shareholdings, etc., in their entirety standing in your books at a figure very greatly below their market value. The inherent financial strength indicated by this company's balance sheet is therefore striking.

And now to review the results of the year's operations of the mining companies that we administer. This I shall do briefly, although in slightly greater detail possibly than last year, because with this report we are not reprinting, as is our custom, the annual reports, etc., of all the companies in which we are chiefly interested. The urgent necessity of economising in the use of paper is the reason for this omission.

Nine Million Tons Milled.

Taken as a whole, we find that the tonnage milled by the mines of our group is 9,125,905 tons and the total gold recovered, valued at £13,434,197, were practically the same as for 1915. Working costs, however, averaging 18s. 11.8d. per ton milled, were appreciably higher, and therefore the working profit at £1,772,893 was £350,000 less than the previous year. As regards working profit, the same feature in the year's work as I referred to at our last annual meeting is naturally in evidence in considering the operations for 1916. It is that the increase in costs of working attributable to the war, including increased taxation and increased cost of realisation of gold, amounting to well over 3s. per ton in high-grade mines, was successfully counterbalanced by some mines having the necessary margin in their mine grade to call upon, whereas in other mines where such a margin does not exist the full effect of the increase was felt in the reduction of profit. Broadly speaking, the mines of the far Eastern Rand in which we are interested, and to some extent also the City Deep, were able to mill ore yielding an increase equivalent to the rise in working costs attributable to the war; the mines of the Central and Western Rand in which we are interested were not able to do so.

I might usefully repeat here what I said as president of the Chamber of Mines, in delivering the annual address, in March last, namely, that the extra burdens which are being borne by the industry and which are attributable to the war—burdens which, of course, cannot be handed on to the consumer, and which press particularly heavily on low-grade mines—constitute an annual charge of over £3,000,000, which is made up as follows:—

Increased price of mine supplies, say	£1,750,000
Increased gold realisation charges	400,000
War bonus to employees	250,000
Allowances to employees on active service	300,000
War Levy	500,000

I would add that we can safely assume, as far as the mining companies which are attached to this company are concerned, that we bear half of this burden, i.e., in the neighbourhood of one and a half million pounds.

The ore reserves of the companies of the group were as follows at the end of their respective financial years:—

Company.	Including shaft and safety pillars (tons).	Estimated value over Stopping Width (dwts.).
Modder B.	3,371,950	9.2
New Modder	8,013,370	8.4
Rose Deep	3,267,250	5.3
Geldenhuis Deep	1,616,000	5.9
Nourse Mines	2,169,300	6.2
City Deep	3,676,087	9.0
Village Deep	2,318,100	6.8
Village Main	750,200	6.6
Ferreira Deep	1,632,600	8.3
Crown Mines	11,429,000	5.9
Bantjes Consolidated	412,000	5.6
Durban Road, Deep	1,259,300	6.3
Total	59,875,187	..

Review of Companies.

MODDER B.—This company had a very successful year. The tonnage milled (543,000 tons), working profit (£687,229), and dividends paid (144 per cent) in each case represented a record. The ore reserves at 3,371,950 tons averaging 9.2 dwts., showed increases of 381,210 tons and 43 dwts. in value. The plant is now being increased from 48,000 tons capacity to 60,000 tons per month, and should be working on the higher scale about the end of this year.

NEW MODDER.—Further progress was made by this company to 30th June, 1916. The tonnage crushed (635,000 tons) and working profit earned (£749,117) were records, whilst the ore reserves, 8,013,370 tons, value 8.4 dwts., showed an increase for the year of 2,002,570 tons and an all-round increase in value of 25 dwts. This is a highly satisfactory position. The new plant now being erected will, we hope, be ready by the end of the year; it is impossible to be definite, but every effort is being made to overcome difficulties caused by the war. If the company is successful in this, the operations, and consequent profit, next year should be on a much larger scale. I may mention that for the 11 months ending the 31st May of this year the New Modder had crushed 601,700 tons, and had made a working profit of £718,042. We anticipate an increase in the revised ore reserves per 30th June, 1917.

ROSE DEEP.—The Rose Deep had a normal year, crushing approximately same tonnage, but working costs were 1d. per ton higher and recovery per ton 1s. 1d. less, the resulting profit (£222,922) being £55,381 less than the year before. Dividends distributed were 26½ per cent., compared with 32½ per cent. for the previous year. The ore reserves, 3,267,250 tons at 5.3 dwts., show a reduction in tonnage, but a slight increase in value.

GELDENHUIS DEEP.—The Geldenhuis Deep had on the whole a good year, crushing the highest tonnage since 1911, and making the highest profit since that date, namely, £169,478. Dividends paid were 25 per cent., compared with 20 per cent. for the year before. The ore reserves show a reduction of some 210,000 tons, the value being slightly lower than the previous year.

NOURSE MINES.—This company's financial year ended on the 30th June, 1916, and whilst the tonnage crushed was a record, the profits of £114,203 showed a reduction on the previous year of £43,840. Dividends paid were 10 per cent. The west mill has been dismantled and operations confined to the Deep section. The profit for the 11 months to the end of May was £113,809, a slight improvement compared with the previous year. The mine has suffered, however, from a shortage of native labour, and, despite an improvement in grade of nearly 4s. 10d. per ton milled, the working expenditure has been high, and, owing to war conditions, the full benefit of the change in policy has not been reaped. The development in the South Nourse section is fairly satisfactory.

CITY DEEP.—This company had a record year, both as regards tonnage and profit, the working profits of £701,300 being £88,908 more than the previous year. Dividends amounting to 48 per cent. were paid, compared with 33½ for the year before. The ore reserves show an increase of nearly 700,000 tons, the value over the whole tonnage being 5 of a dwt. less, the decrease in value being due mainly to an increase in the estimated stoping width on which the reserves were revaluated.

VILLAGE DEEP.—Although crushing a record tonnage, the profit secured by this company was some £20,000 less than the previous year. Working costs were 2s. per ton more. Dividends distributed were 10½ per cent. compared with 21½ per cent. for the year before. The ore reserves show a comparatively small decrease in quantity, but slightly improved value.

THE VILLAGE MAIN REEF.—This company is nearing the end of its life. The profit for last year was £161,633 compared with £170,175 for 1915. In the earlier part of the year profits were adversely affected by the accident to the shaft which took place towards the end of 1915. Two dividends were declared amounting to 20 per cent.

FERREIRA DEEP.—The results to the 30th September showed a profit of £453,695, practically the same as the year before. Dividends amounting to 38½ per cent. were paid. This mine suffers from many underground difficulties caused by earth movements and pressure generally and is at present adversely affected by the Labour shortage. The ore reserves at the end of September were 1,632,600 tons, value 8.3 dwts., a reduction of some 221,500 tons compared with the previous year.

ROBINSON.—This company's profits despite a considerable falling off in the revenue per ton and a slight increase in working costs, amounted to £367,151, a large scale of operations having been successfully maintained throughout the year. Dividends paid amounted to 8 per cent. compared with 14 per cent. the year before. This mine dies hard—on previous estimates it should have ceased operations this year, but it is fairly certain that it will continue earning profits well on into next year. It is really impossible to state any definite time.

CROWN MINES.—Having no margin in mine grade to call upon this company felt the full effect of the heavy increase in working costs resulting from the war and in addition suffered from an inadequate native labour force during the latter half of the year. Working profits were only £815,630 compared with £1,146,552 for the year before. Dividends paid were 50 per cent. compared with 65 per cent. for the previous year. Working costs were 2s. 2d. more and the working revenue showed an improvement of only 2d. There was thus a drop in the profit per ton from 9s. 2d. for 1915 to 7s. 2d. for 1916. Advantage was taken of the plentiful supply of native labour during the early part of last year to press on with development. The ore reserves show an increase for the year of 1,491,000 tons, the value over the whole reserves having fallen, however, by .35 of a dwt., the decrease in value being due very largely to an increase in the stoping width over which the ore reserves were estimated. A start has been made with the No. 14 shaft, the first step in the programme for the development of the company's ground south of the South Rand Dyke. This shaft was sunk 1,156 feet during the year and at the end of last month had obtained a total depth of 2,209 feet. A cross-cut was driven through the South Rand Dyke at the 16th level, No. 7 shaft, showing its

width to be about 450 feet. A borehole put in to prove the reef disclosed south reef at a depth of 238 feet below the 16th level, assaying 21.6 dwts. over 5½ inches. The main reef leader at 404 feet below the 16th level gave a value of 900.6 dwts. over 2½ inches. No great reliance can be placed on these figures, but they are, at any rate, an indication that payable ore may be exposed south of the dyke. An encouraging feature is the increase in the percentage of payable development that has been met with. For 1915 this showed that 50 per cent. only was payable, whereas last year 59.6 per cent. was payable. This year to date owing to the better values obtained, development work is being directed chiefly to the main reef leader. The company has now made arrangements to purchase from the Government the undermining rights of certain water rights, equal to 105.87 claims, within its boundary. The purchase consideration is an annuity of £9,926 for a period of 15 years. The acquisition of these water-rights will considerably facilitate the company's operations.

BANTJES.—This company had a very disappointing year. Although crushing a larger tonnage than the previous year the working revenue fell to the extent of 1s. 10d. per ton, and in spite of a reduction in working costs a loss of £9,326 was made. The ore reserves, after careful revision, showed a decrease of 236,000 tons and half a pennyweight in value. The exploratory work in the main reef leader, both in the eastern and western workings of the mine, has, however, given some encouragement, and although the losses during the first five months of the year have amounted to some £16,700, we have arranged the necessary financial assistance to permit further development on the leader, together with further incline shaft sinking. We hope the results will justify the course which has been taken.

DURBAN DEEP.—This company did not do well during the year, the profits amounting to £40,833, or £11,218 less than the previous year. The working revenue was lower, the working costs the same and dividends 2½ per cent. compared with 7½ per cent. for the year before.

Native Labourers.

The supply of native labourers was, on the whole, satisfactory during the greater part of last year. During the latter part of the year, however, the supply has, unfortunately, steadily decreased. Thus the number of natives in the employ of the gold mines of the Witwatersrand at the beginning of 1916 was 209,438; at the end of 1916 was reduced to 191,547; and during the current year has fallen still further, until at the end of May the number employed was only 180,168 labourers. Various causes have clearly contributed to this falling off. The diamond mines are employing about 18,000 more natives now than they were fifteen months ago, and the coal mines have also required and obtained more labour, the increase in the numbers employed by them over the same period being about 6,000. Activity in alluvial diamond fields, tin and copper mines, and other industrial works, has also accounted for a considerably increased use of native labour: these latter ventures are apparently employing about 15,000 more natives than they were at the beginning of 1916. And, finally, we have to remember, also, that the recruiting of a contingent of native labourers for work in France—who, we are delighted to know, have been of real service—accounts for an appreciable number of able-bodied natives. As regards our own group, we had in our employ at the beginning of 1916 65,000 native labourers: this number had fallen at the end of last year to 57,000, and at the end of last month to 55,000. The native labour position is therefore one that occasions some anxiety, having in mind the continuous

and progressive demand that exists. We are doing all we can to substitute machine rock drills, both large and small, for the hand labourer, but that is a matter of some difficulty to-day when the supplies of drills, steel, spares, etc., are naturally not as easily available as in normal times. The industry has just recently taken steps to make it attractive for time-expired natives to enter into further contracts with mining companies, and I am hopeful that these measures will have some good result. Normally, an improvement in the native labour supply can be expected about August, and I trust that we shall see it this year, despite the special calls that I have referred to upon the available labour.

Working and Health Conditions.

The working and health conditions of our native labourers have continued to receive the most careful attention of our officials concerned in that work. The mortality from disease amongst the native employees of our group for 1916 was, I am happy to say, the lowest on record, viz., 12.24 per thousand, or 2.36 per thousand less than the rate for the previous year. We also further improved a little in our accident mortality amongst natives, and the total decrease in mortality in this section over the whole of our group was equivalent to a saving of 153 lives for the year as compared with 1915—a most gratifying feature in our year's work. The general improvement in the hygienic conditions of our compounds is marked, and is, I think, reflected in a large decrease in the mortality during the year from pneumonia. There was also a heavy decrease in the average number of natives daily sick in our hospitals. For our group alone we had in this respect 5,600 less sick cases during 1916 than for 1915, and in this connection I would draw particular attention to the interesting remarks made the other day by the chairman of the Crown Mines at that company's annual meeting. All these facts are extremely encouraging, you will agree, and reflect the highest credit upon our mine medical officers, the medical officer attached to our head office, and all the officials concerned.

Safety First Movement.

Whilst speaking on health and safety measures, I would add that the activities of the Safety First Movement, under the Rand Mutual Assurance Company, Ltd., and the stimulation of interest in First-Aid Work, with the valuable help of the South African Red Cross Society and the medical officers on the mines, continue to be factors of the highest importance. This work concerns chiefly our white workmen, who, by becoming more and more imbued with that sense of personal responsibility which is so necessary, have together saved the lives of very many of their fellow workmen and the lives of many native labourers. I feel convinced that we are making steady and appreciable improvement in these matters.

As regards the metallurgical efficiency of the mines of our group, the average extraction results, which, as you know, had already reached a very high state, show, as might be expected, very little difference. There is, as a matter of fact, a still further slight improvement. Much work of a very valuable character has been performed by the departmental heads concerned with this section of our operations in the matter of rigid economy in the use of cyanide and zinc and a resultant appreciable reduction in the consumption of these articles. Indeed, general economy of a marked description has been in evidence in the work of our mechanical engineers as well as our metallurgists, both in the quantity of mining essentials consumed and in the way in which strenuous endeavours have been made, and successfully made, to

use a variety of substitutes for the imported articles which it is impossible in some cases to obtain, as well as in the conserving and working up of all scrap material. The work has been thoroughly organised by our head office and mine office technical men, and, as I have said, has been of great value to the group. Further appreciable economies were effected during last year in the use of lower grade explosives in substitution for the higher grade; or, in other words, we succeeded in doing our work with the consumption of far less glycerine than was previously used—a most important point, you will agree, having in mind the more urgent requirements for glycerine in Europe.

You will be glad to know that the long outstanding matter of the freeholders' share of the bewaarplaatsen proceeds is very near settlement. As you are aware this is a question of much importance to some of our companies to whom considerable sums of money are due in this respect. That the justice of the claim of the freehold owners has finally been confirmed by Government is satisfactory.

Far East Rand.

I would refer briefly to some expansion that has taken place of our interests in the far East Rand. Last year I drew attention to the acquisition of a half interest in a block of mining claims on the farm Vogelstruisbult in that district. You will have noticed that recently Government has advertised for tenders for the lease of four areas in the far East Rand, and that one of these areas abuts on our Vogelstruisbult claims. Any success, therefore, that attends the exploitation of the area referred to will be of great interest to us. We have taken an interest with the Central Mining and Investment Corporation, Limited, and the Transvaal Consolidated Land and Exploration Company, Limited, in a prospecting venture on the farm Hoffontein in the far East Rand. Boring operations are now in progress, and it encouraging information is obtained further prospecting work will be undertaken. We have, as you know, an interest in the Daggafontein Mines, Ltd., and we have also acquired a participation in the Brakpan Mines, Ltd., in connection with the expansion of that company on the acquisition from Government recently of the Brakpan lease. Then, since the close of last year, we have also acquired an interest in the Modderfontein East, Ltd., a company which is being formed to work the Government lease ground lying to the east of the Modderfontein B mine, together with the Cloverfield and Rand Klip mining areas. This company will have a mining area of about 2,350 claims. At the time of speaking, the dewatering of the Cloverfield shaft has practically been completed, and active development operations will shortly be undertaken. Therefore, gentlemen, our enterprises in this favoured section of the Rand are being well maintained, and if favourable opportunities offer in the future may be still further increased. As I mentioned just now, the Government has recently offered for tender the leases of four new areas in the far East Rand, totalling some 9,000 claims. It has been wisely realised that there is a long period of development and equipment, equal to five or six years, which necessarily precedes actual production in these new deep-level mines, and also the fact that it is essential in the interest of all in this country to provide for the inevitable falling-off in the mining activities of the Central, or older, section of the Witwatersrand which must occur during that period.

White Employees.

As regards our white employees, we have done, and are doing our best to see that their living and working conditions are steadily improved wherever possible, and we hope that the relationship between them and us is being more and more closely adjusted on a proper basis; we are doing our best to achieve that end.

Our employees have continued to support in a most generous way the various war funds, and the amount subscribed by the men in our group to the end of May amounted to no less than £105,436.

The continued desire on the part of our employees to proceed on active service has naturally remained very marked, and we have continued to make every effort to allow all to go that possibly could, having in mind the national necessity of the work in which they are engaged. Our losses on active service have, unfortunately, been heavy. I reported this time last year that 54 men had met with their death, and I much regret to have to report that up to the end of last month 52 more men have given their lives. Our respectful sympathy is tendered to their relatives.

Finally, I want to place on record our very thorough appreciation of the continued excellent work rendered by the most valuable organisation which this company possesses in its consulting engineers, consulting electrical and mechanical engineers, consulting metallurgists, financial and clerical staffs, together with all the officials who work with them. The organisation is a very large one and the numbers are great, and therefore I do not attempt to give names. The point is that your thanks and ours are very justly due to all these gentlemen. I have to record with regret the death of Sir Sigismund Neumann. I now beg to move the adoption of the report and accounts for the year ended 31st December, 1916.

Mr. E. J. Renaud seconded the motion, which was carried.

The retiring directors, Messrs. E. J. Renaud and W. Mosenthal, were declared re-elected, there being no further nominations, and the auditors, Messrs. C. L. Andersson and Co., and Douglas, Low and Co., were reappointed.

CROWN MINES.

The 21st ordinary general meeting of shareholders in the Crown Mines, Ltd., was held on June 22 at the Corner House.

Mr. Samuel Evans presided, and among those present were Messrs. S. C. Steil, H. O. Mascal, A. Little, H. W. Thomas, D. W. Rossiter, H. A. Rogers, A. F. Mullins, J. L. Jourdan, A. Sprinz, H. C. Boyd, J. C. Dumat, F. Raleigh, M. Honnet and E. A. Wallers.

The Chairman said: The reports and accounts for 1916 have been in your possession for some weeks, and I do not propose to take up your time with details with which no doubt you are already familiar. Briefly, the results of the year were: Footage developed, 54,477 tons milled, 2,266,000; working revenue £2,887,777; working expenditure, 2,072,147; working profit, £815,630; dividends paid, £470,053. Compared with 1915, there is a decrease of 231,000 in the tonnage milled, £276,566 in the working revenue, £330,922 in the working profit, and £141,016 in the dividends, whilst there is an increase of 6,177 in the footage developed and of £54,355 in the working costs.

The difference of £345,577 1s. 3d. between the working profit and the amount distributed in dividends is accounted for as follows: Government taxes (Union of South Africa £116,201 1s. 3d. and English Income tax £445 9s.), £116,646 10s. 5d.; annuity paid to Government in respect of undermining rights, £19,792; redemption of debentures, £39,400; interest on debentures, £39,333 4s. 9d.; capital expenditure, £613,414 18s. 1d.; Miners' Phthisis Compensation Fund, £20,004 14s.; contributions to war funds and donations, £3,580 0s. 1d.; increase of unappropriated balance at 31-12-16, as compared with 31-12-15 £14,693 8s.; total, £268,071 15s. 4d. Deduct: Revenue from freehold, estates, interest and sundry other receipts, £20,540 18s.; difference between nominal value and net cost of debentures purchased during the year, £1,833 8s. 3d.; forfeited dividends, £190 7s. 10d.—£22,404 14s. 1d.; total, £345,577 1s. 3d.

The results obtained up to date this year compare with those of the corresponding period last year as follows:—

	Monthly averages. Five months ended May 31st.	
	1916.	1917.
Footage developed ..	5,199	3,072
Footage broken ..	5,286	10,017
Percentage of ore stored (broken by machines) ..	50	89
Tons milled ..	186,400	180,600
Value of yield ..	£247,654	£231,612
Working costs ..	£173,845	£171,431
Working profit ..	£63,809	£60,181
Average number of Europeans in company's service ..	1,700	1,636
Average number of natives in company's service ..	17,262	13,154

It will be noted that although we had 4,108 fewer natives and 64 fewer white employees, our costs show a reduction of £7,414 only. A dividend of 20 per cent. has been declared for the current half-year.

Reasons for Decreased Profits.

The disappointing features in connection with last year's and recent results are the increase in the costs and the reduction in the tonnage treated. Those two factors account for the fall in the profits and the reduction in the dividend as compared with 1914 and 1915. There has been practically no change in the yield per ton since the beginning of 1914. Last year it was 2d. better than in 1915 and 6d. less than in 1914. This year, up to the end of last month, the yield per ton has averaged 25s. 7.8d., as compared with 25s. 5.9d. last year, 25s. 4.1d. in 1915, and 25s. 4d. in the second half of 1914.

The working costs have been going steadily up, particularly since the middle of 1915. The figures since the end of 1913 have been:—

1914, 15s. 7.2d. per ton milled
1915, 16s. 2d. per ton milled.
1916, 18s. 4.8d. per ton milled.
1917 (five months), 18s. 11.8d. per ton milled.

It will be seen that, compared with 1914, there is this year an increase of 2s. 4.6d. per ton milled equal to an amount of £22,000 per month on the tonnage treated last year. It must be borne in mind that this year, compared with 1914, there is an increase of 938 in the monthly development footage charged to working costs, whilst the average tonnage mined per month shows a decrease of 15,831. Taking everything into account, I think that it is not an exaggeration to say that were we working at present under similar conditions to those which prevailed immediately before the war our working costs would be close on £30,000 per month less. The following increases in the company's total expenditure in March this year as against the average monthly figures for the first half of 1914 are directly attributable to the abnormal conditions brought about by the war:—

Increased price of stores ..	£10,000
War bonuses and active service allowances ..	2,800
Increased charges on realisation of gold ..	2,700
	£15,500

And it has to be remembered that the above figures leave out of account the special war levy, which amounted last year to £11,093, and that do not include the important increase due to the loss of efficiency occasioned by the enlistment of a percentage of our best men, who have had to be replaced by less experienced hands. I need hardly add that every endeavour is being made to keep the costs as low as possible.

Shortage of Labour.

As the consulting engineer points out, the fall in the tonnage mined last year was attributable to the shortage of labour in the second half of the year and to the substitution of hand labour for machines in the earlier months. I dealt with the

latter point very fully at the last annual meeting. Native labour was plentiful at the beginning of 1916, but there was a considerable shortage in the last six months of the year, which has become severe since and has seriously curtailed our operations. Recently our greatest difficulty has been to obtain boys for shovelling and tramming. The extent of the fluctuations in our labour force may be gathered from the fact that we had in our employ 18,884 natives in January, 1916, as against 14,040 in July, 15,366 in October and 12,686 last month. That is, since the middle of last year we have been between 3,500 and 5,000 natives short of the complement necessary to work the mine in the most satisfactory manner, and it is this shortage which accounts for the reduced tonnage that has been mined in the past 10 months. Our plant has a capacity for treating 2,760,000 tons per annum. Of course, it is not possible to make full use of the plant all the time, but I think that with an adequate labour supply under normal conditions we should be able to mill on the average 215,000 tons per month, say, 2,600,000 tons per annum. The results of the last three years have fallen short of this figure by: 1914, 313,000 tons; 1915, 103,000 tons; 1916, 334,000 tons. You will no doubt have noticed that the plan issued with last year's report differs very materially in one respect from the plans issued with previous reports. The South Rand dyke, which was a feature in all previous plans, has practically disappeared from the plan now issued. That dyke was found to be exactly where it was expected in the 16th level crosscut south of No. 7 shaft, but in the 19th level crosscut south of No. 5 shaft it was found to be 1,500 feet further south than had been anticipated. We do not know at present how it joins up with the dyke south of No. 7 shaft—if it does join up at all—but it is clear that on the eastern side of the property there is a much larger area of reef-bearing ground north of the dyke than we had hitherto expected to get. The horizontal distance through the dyke in the 19th level crosscut south of No. 5 shaft is 640 feet, and in the crosscut on the 16th level south of No. 7 shaft it is 450 feet. In the latter case a borehole was put down on the south side of the dyke with the result that at a vertical depth of 278 feet below the 16th level the south reef was struck and gave 21.6 dwts. over 5½ inches, and 166 feet further down the borehole passed through the main reef leader, which gave a value of 9.006 dwts. over 2½ inches. The main reef leader values are distinctly encouraging and justify us in expecting payable ore south of the dyke. Another alteration in this year's plan is the disappearance of a number of blocks, bewaarplaatsen areas, which were marked as Government ground on previous plans. As you will gather from the report, we have acquired the mining rights of all such areas which fall within our boundaries, covering altogether 105.87 claims, the consideration being an annual payment to the Government of £9,926 for a period of 15 years. The first instalment is payable on December 31 next.

The Bewaarplaats Moneys Application Bill has passed the House of Assembly and is now before the Senate. This Bill provides that 19.40ths of the bewaarplaats moneys which have hitherto been received by the Crown and 18.40ths of the bewaarplaats moneys which may be received in the future shall be paid to the owner of the freehold. The Government reserves the right to pay the moneys due and which may become due to the freehold owner either in cash or in Five Per Cent. Union Stock up to the end of 12 months after the termination of the war. Under this arrangement the Crown Mines will receive out of the moneys which have accrued about £150,000 and the following annuities:—About £22,000 per annum up to 1920; about £10,550 per annum from 1921 to 1925; about £2,000 per annum from 1926 to 1951.

Development Work.

The programme for the development of our southern ground, to which I referred at some length at the last annual meeting, is being pushed ahead energetically. The fact that the South Rand dyke is not where it was expected will possibly involve some modification of our original plans. At the end of last month No. 14 shaft had reached a depth of 2,209 feet. In September last the world's record was established in this shaft when 246 feet were sunk in 30 days, which reflects great credit on Mr. Ivor Rees, who is the mine overseer in charge of the operation at this shaft. We expect the junction of the shaft with the 19th level crosscut to take place in about eight months' time. The 16th level main haulage has been completed and is in working order. The total quantity of ore developed last year was 3,435,600 tons, of which 80 per cent., or 2,743,900 tons, was payable, averaging 6.1 dwts over 65.5 inches, whilst 20 per cent., or 691,700 tons, was unpayable, averaging 2.78 dwts over 61 inches. No doubt a certain proportion of the latter will be mined at a profit. At the end of the year under review the payable ore reserves totaled 11,429,000 tons, having an estimated value of 5.9 dwts over a width of 66.4 inches, as compared with:—

	Tons.	Value in dwts.	Width in inches.
1915	9,938,000	6.25	63.8
1914	10,022,000	6.00	65.4

Compared with the position at the end of 1915 the average width is greater by 2.6 inches and the values less by .35 dwts. Mr. Warriner points out that the increase in width is due to the reversion to machine stoping and is the main reason for the lower values. Generally, the ore reserve position is satisfactory. Whilst maintaining the grade we have increased the quantity of ore in sight by 1,407,000 tons as compared with the 1914 figures. You will no doubt have noticed in the quarterly reports that recent development has shown an improvement in the value of the ore exposed. I shall quote the quarterly returns since the beginning of last year:

Quarter ending 1916.	Distance sampled in feet.		Values in inch. dwts.	
	Main Reef.	South Reef.	Main Reef.	South Reef.
Mar. 31 . . .	3,470	4,470	329	270
June 30 . . .	3,920	4,480	348	288
Sept. 30 . . .	3,710	3,210	422	334
Dec. 31 . . .	4,120	2,070	479	381
1917.				
Mar. 31 . . .	3,870	1,670	496	411

You will, I am sure, agree with me in considering the figures quoted as encouraging, and it must be remembered they include the unpayable as well as the payable ground opened up. I may add that nearly all the development now taking place is below the 13th level, and a good deal of it below the 16th, at depths varying between 2,000 and 3,000 feet.

The Roll of Honour.

I have little to add to what I said last year as to the part our employees are taking in the war. Everything possible has been done to facilitate recruiting amongst our employees and every suitable man who can possibly be spared has been allowed to enlist. Altogether 554 Crown Mines' men have joined the forces since the outbreak of hostilities. You may remember that last year I mentioned that four of our men had been killed in action or had died on active service. I very much regret to say that we have to deplore a further loss of sixteen men, namely, D. Estili, L. Hawthorne, I. M. McCusker, D. A. Snashall,

W. Townsend, W. Carnegie, A. H. Dixon, W. S. MacDonald, D. J. Farquharson, H. J. Louw, M. Sikimich, H. Snell, W. R. Brand, U. Cowan, F. C. Kay, S. M. J. Sparkes. It is, I am sure, your wish to join with the directors in extending our sincerest sympathies to the bereaved families. Since our last meeting 21 Crown Mines' men have been wounded on active service. Several have recovered, and we hope that the remainder will soon be able to resume their duties. The war has brought home to us the fact that hitherto the mining industry has been dependent to a large extent on overseas supplies, not only of stores, but also of skilled workers. As a consequence, a great deal of attention has recently been devoted to the improvement and extension of the facilities for training miners and mechanics, with the result that we have on the Witwatersrand to-day in the School of Mines, the Trades School and the Miners' Training Schools the organisation necessary to give a thorough training to the youths of this country not only in mining but also in all the skilled occupations provided by this industry, including even those of the general manager and of the chief medical officer. It is to be hoped that parents on the Witwatersrand and in other parts of South Africa will take the fullest advantage of the unique educational opportunities afforded on these fields to enable the younger generation to become efficient and worthy citizens. It is to be hoped also that the authorities will take care that our educational institutions are adequately staffed, equipped, and housed. There is no other place in the British Empire which offers such excellent facilities for students of mining engineering as are to be found here. Unfortunately in recent years very few young South Africans have come forward to learn mining engineering, and it now seems probable that there will be a dearth of mining engineers in this country in a few years' time, and that the industry will have to rely on filling many vacancies with men who have been taught their profession in other countries. We had in our employ last year an average of 1,676 Europeans, of whom 50 per cent. were South African born, 37 per cent. British, and 13 per cent. foreigners. The position four years ago was 35 per cent. South African, 53 per cent. British, and 12 per cent. foreigners. Another change that has taken place has been the increase in the proportion of married employees. Here are last year's figures, compared with those of 1912:—

	1912.		1916.	
	No.	%	No.	%
Married men with families living on the property	267	14.4	291	17.4
Married men with families living elsewhere in South Africa	524	28.2	741	44.2
Married men with families living abroad	105	5.6	83	4.9
	896	48.2	1,115	66.5
Single men	962	51.8	561	33.5
	1,858	100.0	1,676	100.0

We are at present providing accommodation for 17 additional families.

Our managers continue to devote the closest attention to the safety, health, and welfare of our employees and their families, and they are materially helped in their efforts by the safety and health committees which were formed last year. The first aid department under the efficient direction of Mr. Anderson continues to do excellent work. It is now pretty generally realised amongst those who are in a position of responsibility on the mines that the conservation of health and life has to be a supreme consideration in the conduct of the industry.

Health on the Mine.

There is on the table and at your disposal copies of the report of our chief medical officer, Dr. Loeser, on the health of our

native labourers during 1915. Any shareholder who is not present can obtain a copy on applying to the secretaries of the company, either here or in London. I am sure you will find the report interesting, as it shows that very substantial progress has been made in safeguarding the health and life of our native workers, and the position which has been reached reflects great credit on Dr. Loeser and his assistants. A considerable portion of the improvement is undoubtedly attributable to the steps taken to prevent the spread of disease, such as the replacement of the bucket by the septic tank system, the provision of individual sleeping bunks, the installation of incinerators for the rapid destruction of garbage, the antityphoid campaign, and other measures which Mr. McKenzie, our chief compound manager, and his assistants have carried out with the help and advice of our own medical officers and of Dr. Ornstein, superintendent of sanitation to the Central Mining Rand Group of Companies. One important reason for the improvement in the case mortality rate has probably been better nursing in the native hospital. Some two years ago Dr. Loeser decided to replace the native male orderlies by properly-trained native female nurses under the direction of competent European sisters, and he was fortunate in obtaining the services of Sister Silverman as superintendent. The experiment has proved an undoubted success, and to-day the whole work of nursing in our hospital is done by 12 native women nurses under the supervision of five European sisters. At the outset Dr. Loeser had many obstacles to face, but they have been successfully overcome, with the result that the general efficiency of the hospital has been greatly improved. As you are aware, ever since the formation of the Crown Mines we have paid particular attention to all measures aiming at the elimination of disease and accident on the property. It was on the initiative of this company that Sir Almoth Wright and General Gorgas were invited to visit these fields, and that the South African Medical Research Institute was established; and it is a considerable satisfaction to us to know that the death rate among the native workers on the Rand is now approaching the Panama rate, which seemed almost unattainable a few years back. A comparison between our figures for last year and those for 1912 shows what great progress has been achieved:—

DISEASE.				
	Average No. of Kafirs Employed	Average Number in Hospital Daily.	Percentage in Hospital of Average Number Employed.	Death-rate per 1,000 per annum.
1912	12,748	228	1.8	27.14
1916	15,692	91	.58	10.39

ACCIDENT.				
	Average No. in Hospital Daily.	Percentage in Hospital of Average No. Employed.	Death-rate per 1,000 per annum.	
1912	271	2.12	5.88	
1916	154	.98	3.95	

Excluding tropicals, the death rate from diseases has been:—Average of five years 1910-10, 21.23 per 1,000 per annum; 1915, 14.27 per 1,000 per annum; 1916, 10.47 per 1,000 per annum; five months 1917, 7.30 per 1,000 per annum. The death rate from accident is not quite as satisfactory as in 1915, but shows a considerable improvement on 1913 and previous years. It will be noted that the number of shifts lost per labourer per annum through disease has been reduced from 5.29 in 1910-14 to 2.13 last year and 1.88 in 1915. In other words, compared with the conditions prevailing in 1910-14 there was a

saving of 51,051 shifts in 1915 and 49,506 shifts in 1916. In conclusion, I desire to express our sincere acknowledgements of the valuable and loyal services rendered to us by Mr. R. C. Warriner, consulting engineer, Mr. A. J. Brett, general manager, Messrs. W. J. Pitchford and T. Simpson, joint managers, and the other members of the company's staff at the mine and in the head office. I now beg formally to move the adoption of the report and accounts.

The report and accounts were adopted.

The retiring directors (Messrs. W. H. Dawe and R. W. Schumacher), and auditors (Messrs. C. L. Andersson and Co. and Messrs. Howard Pim and Hardy) were re-elected.

ROBINSON G.M. CO.

The 24th ordinary general meeting of shareholders in the Robinson Gold Mining Company, Ltd., held in the Corner House on June 22nd was presided over by Mr. F. Raleigh, there being also present: Messrs. A. F. Mullins, Comte F. de Ferrieres, H. C. Boyd, J. L. Jourdan, S. Evans, C. Meintjes, J. Honnet, E. A. Wallers. The shares represented were 24,582.

The Chairman said: The past year's operations resulted in a working profit of £367,151. The sum is reduced to £351,580 after taking into account donations, phthisis compensation assessment, depreciation on investments and the amounts written off in respect of the acquisition of certain ore from the Robinson Deep and Ferreira Deep companies, less interest, dividends and other revenue. The working profit is £123,300 less than that earned during the previous year, which is accounted for by a decrease of 3s. 4d. per ton in the value of the yield, and an increase of 3d. per ton in the working costs. The tonnage milled was slightly in excess of that of 1915, and is the highest tonnage crushed by the company in any one year since its inception. The profit earned has been dealt with as follows:—

Payment of balance of annuity to the Government in respect of undermining rights acquired in 1910, after deducting credits on capital account	£33,034
Payment of Government taxes (which includes the second war levy, amounting to £16,000).	51,084
Payment of two dividends of 4 per cent. each, making 8 per cent. for the year	220,000

The balance £47,462 has been added, together with £88 forfeited dividends, to the credit balance of appropriation account, bringing it up to £187,014 at the end of last year. Regarding the balance sheet the only changes of any note are those relating to the increased balance of appropriation account, i.e., £47,550, which is represented by:—

Balance of the amount paid to the Robinson Deep, Limited, for the right to mine certain ore	£29,040
Increased value of shares in co-operative concerns, stores, livestock and sundry debtors	13,020
Increased value of cash and investments, less liabilities	5,490

It will be seen that the investments have been reduced by the sale of your company's holding of Johannesburg Municipal Stock. The sale showed a small

loss of £161 when taking into account interest up to date of the transaction. The remaining investments, viz., £3,200 Mexican Electric Tram Debentures and 40,000 Crown Mines 10s. shares have been depreciated to the extent of £3,952 in order to reduce their book value to the market value as at the end of last year. The annuity account with the Government has now been closed by the final payment in connection with the mining rights acquired seven years ago, and this account will disappear from the company's balance sheets. The amount paid to the Robinson Deep for the right to mine certain ore is being gradually extinguished by charging to working expenditure account as the ore is mined.

Regarding our holding of Crown Mines shares, your directors regret that a further depreciation, amounting to 1s. 4½d. per share has had to be dealt with in the past year's accounts. The rate of dividend paid by that company during 1916 was 50 per cent., as against 65 per cent. for the previous year. The annual meeting of the Crown Mines was held this morning, and whilst the profits earned for the past year are considerably reduced, very largely owing to the native labour position, it is satisfactory to note that the development values obtained lately are distinctly encouraging.

You will have noticed that the Union Government's financial programme includes provision for the payment of the freeholder's share of the moneys paid to the Government for the undermining rights of water-rights and bewaarplaat-sen. The Company's share as freehold owner of certain of these mining areas should amount at date to about £146,000, after which further small amounts totalling about £10,000 become due over a long period in varying sums.

Tonnage Mined.

Regarding the past year's operations, the tonnage mined from all sources totalled 633,700, and in addition 62,362 tons were obtained from the surface dumps. These dumps, which are now exhausted, have provided a tonnage of 218,462 tons averaging 3.49 dwts. in value. The large tonnage output from the mine is the result of working from the surface downwards in both the richer reefs as well as in the Main Reef, and whilst mining has included a certain quantity of South Reef and Leader block ground, it has been confined chiefly to reclamation work in South Reef and Leader stopes, and the mining of about 300,000 tons of the Main Reef body underlying stoped out Leader areas. About 20,500 tons were mined from the Robinson Deep block ground acquired, as advised at the last annual meeting, and a portion of the Robinson Deep boundary pillar, acquired at the same time, was also mined during last year. During 1916 arrangements were made with the Ferreira Deep for your company to mine and mill certain of their Main Reef, which, whilst accessible to us, is not accessible to them, except at a large outlay. The ore in question is situated on our eastern boundary, and the tonnage obtained from this source to the end of last year was under 8,000 tons. The terms arranged between the two companies provide for the Robinson Company paying the Ferreira Deep, Limited, on a sliding scale basis dependent on the assay value of the ore mined. It cannot be now estimated what further tonnage will be drawn from this source. The value of the yield recovered last year was 24s. 6d. per ton, as against 27s. 10d. for 1915. The reduction in the value per ton will continue as the mine becomes more and more exhausted. The costs for the year averaged 3d. per ton more than last year, but were still below 14s. per ton. Such low costs are only possible whilst the scale of operations is large, and as the tonnage crushed falls off (as it is bound

to do) costs must be expected to rise. Regarding the ore remaining in the mine, the Consulting Engineer estimates there are 190,000 tons of Leader and South Reef and 500,000 tons of Main Reef, or a total of 690,000 tons as against 1,100,300 at the end of the previous year. The Consulting Engineer points out that it is more difficult year by year to estimate the remaining tonnage in the mine. Previous estimates have been on conservative lines, and doubtless the tonnage mentioned is also conservative because, whilst it includes the tonnage which the officials are able to estimate, it does not include stope pillars and ore which, as in the past, may be found in quantities when turning over old stopes, and in the case of the Leader when extracting the Main Reef. Further, the Main Reef may possibly produce a higher tonnage, which can only be determined as mining work proceeds. You will notice that Mr. Cazale states in his report that ore of good value previously not known to exist is still being mined at the outcrop and at all levels below; further, that with the aid of reef packs and sand any Main Reef ore can be mined at a reasonable cost, and will be so mined provided payable values are obtained.

The Remaining Life.

After considering the matter carefully, I find it impossible to give a definite forecast of the remaining life. The tonnage estimated to be remaining in the mine indicates about a year and a half from the 1st January last at last year's rate of milling, but there are so many factors to be taken into account that I can only say that, provided the native labour conditions admit of maintaining a high tonnage output, the company should be milling for at least two years from 1st January last, though the profits to be earned in that period are not now determinable. We have to realise that practically no block ground now remains; we are dependent almost entirely upon the reclamation work in the leader and south reef, together with a large body of main reef of low grade to be also reclaimed from exhausted leader stopes. The mine has been of exceptionally high grade in the past, and, in turning over the old abandoned stopes and reclamation from the foot and hanging walls, valuable ore is still being recovered in a manner which would probably not be possible in many other mines. To-day the management is even reopening sections of the south reef, leader and main reef at the surface, and obtaining gold from worked and abandoned areas by means of open cuttings. The manner in which the mine is being secured from end to end is most creditable to all concerned in its management. During the five months ended 31st ultimo, 271,600 tons have been milled, or an average of 54,320 tons per month as compared with 57,680 tons per month for last year. The working profit has amounted to £110,023, or an average of £22,004 per month, which is about £7,900 per month less than the average monthly working profit of last year. A dividend of 34 per cent. has been declared by the board for the current half year. Up to the end of last month 91 of the company's employees have gone on active service. Two of the employees have lost their lives in the service of their country, namely Private D. J. Hedding and Private C. N. Hugo, and 11 have been wounded. Our sympathies are extended to the relatives of those who have fallen. I beg to record your board's appreciation of the services rendered to your company during the past year by the consulting engineer, Mr. Percy Cazale, the manager, Mr. Palmer Carter, and the staffs at the mine and head office. I now beg to move the adoption of the reports and accounts for the year ended 31st December, 1916.

The balance sheet and accounts were adopted.

The retiring directors, Messrs. E. A. Wallers and Samuel Evans, were re-elected, as were the retiring auditors, Messrs. H. J. Macrae and Messrs. C. L. Andersson and Co.

CITY DEEP, LTD.

Mr. E. A. Wallers presided at the 16th ordinary general meeting of share holders in the City Deep, Ltd., held in the board-room, Corner House, on June 22. Others present were Messrs. J. R. Nicholson, S. C. Steil, H. W. Thomas, A. F. Lyall, H. H. McNeil, E. H. Read, F. Raleigh, F. R. Lynch, V. J. Ronketti, H. Newhouse, E. M. Hind, W. H. B. Franck, and F. C. Dumat, representing 397,726 shares.

The Chairman said:—In moving the adoption of the report and accounts for the year ended 31st December last, I do not propose to deal in any great detail with the financial results that were obtained, because the facts have been in your possession for a long time and will be thoroughly familiar to you. There were naturally many adverse factors to contend with during the year, but notwithstanding these the results, broadly, show, as you will observe, an appreciable improvement over any that have hitherto been obtained by your company. The heavy and continuous increase in cost of mining supplies and of various other items constituting our working expenses was successfully counter-balanced in our operations by our ability to mill a greater tonnage last year than during the previous year and also to obtain from the mine a higher yield per ton. The total working profit, therefore, at £704,390 was £88,963 better than for 1915. As you will have seen from your accounts in detail, this working profit was increased by sundry other items of revenue to a total of £715,050, which was carried forward to appropriation account, and this with the balance of £206,943 brought forward from the previous year gave a total amount of £921,993 available for distribution. Government taxes absorbed £109,954, the net expenditure on capital account amounted to £33,328, two dividends of together 45 per cent. accounted for £562,500, and the balance unappropriated brought forward at the beginning of this year was, therefore, £211,214, of which £108,679 was in the form of cash after providing for all liabilities. That I think, deals sufficiently fully with a financial position that can be regarded as very satisfactory.

Development Work.

As regards the development work carried out during last year, you will have observed that a rather smaller footage was effected, viz., 25,743, as compared with 27,301 feet in the previous year. On the whole, however, this important side of our work was well maintained, and in fact all available points of attack in development were utilised. The reef disclosed in the upper portion of the mine has continued, as was indeed anticipated, to be of a very satisfactory value, and the complete development of this section will take another three years, approximately. The 5th, 6th and 7th levels have been driven to the western boundary, which had already been reached by the 8th and 9th some time ago. From the 10th to the 14th levels, inclusive, development has proceeded in ground fortunately somewhat less disturbed by faults and dykes, which were previously a little troublesome in the neighbourhood of the incline shaft. The effect of our last year's work upon the ore reserve of the company you will have realised from a perusal

of the consulting engineer's report. At the re-valuation at the end of the period we are reviewing, our ore reserves were estimated to amount to 3,676,000 tons, or an increase, in round figures, of 700,000 tons upon the estimate made at the end of 1915. The value, at 9 dwts. per ton, is 5 dwts. per ton less than at the end of 1915. The decrease in value is almost entirely due to an increase of four inches in the estimated width upon which the ore reserves were calculated. This increase in width also accounts partially for the increase in total tonnage, but the major portion of the increased tonnage is, as I have indicated, the result of the new development work during 1916. Fortunately, we were able last year to make considerable progress with the sinking of the incline shaft, No. 1 incline was started and sunk 466 feet to below the 14th level. Development proceeded here on the 10th and 13th levels east and west, and the results were very satisfactory on the whole. As regards No. 2 incline, I referred at the last annual meeting to the fact that the new winder had just been erected, and we thereupon resumed sinking operations at this shaft and had practically reached the 15th level at the end of last year. For the first five months of the current year development operations have been well maintained. No. 1 incline has been sunk 280 feet to a depth of 127 feet below the 15th level, and No. 2 incline has been sunk 183 feet to 204 feet below the same level. By the close of this year, therefore, a number of new points of lateral attack will be available in the deeper levels of the property, and our information as to values there will be much greater—to attempt to prophesy at the present time would be useless.

Development at Depths.

As far as we have gone in the development of the mine at depth, the reefs disclosed, although not of the exceptional character as regards value that is met with in our upper levels, are, nevertheless, of good grade. I give you herewith the average value of the total reef disclosures on the Main Reef Leader in all the drives from both shafts for the 12 months ended 31st December last and for the first five months of the current year, and you will thus have all the information available.

REEF DISCLOSURES IN DRIVE FACES. Period 31/12/15 to 31/12/16.

		Footage Sampled.	Reef Width.	Reef Value.	Inch. dwts.
No. 2 Shaft—					
2 Level Drive	West	470	47.6	42.5	2023
3 " "	East	330	27.8	83.4	2319
3 " "	West	600	28.2	35.3	995
4 " "	East	120	18.8	24.5	461
4 " "	West	385	22.7	29.7	674
5 " "	East	200	29.3	24.8	727
5 " "	West	40	26.3	17.5	460
6 " "	West	205	47.7	14.7	701
7 " "	West	80	29.5	18.6	549
10 " "	East	355	41.6	14.6	607
10 " "	West	565	49.7	8.4	417
11 " "	East	455	34.7	12.5	434
11 " "	West	430	34.1	7.1	242
12 " "	East	390	37.6	9.8	368
12 " "	West	315	52.2	9.7	506
13 " "	East	530	26.2	18.6	487
13 " "	West	165	44.3	8.2	363
14 " "	East	635	25.2	1.7	271
14 " "	West	430	37.0	10.9	403
No. 1 Shaft—					
10 Level Drive	East	N.D.	—	—	—
10 " "	West	N.D.	—	—	—
11 " "	East	100	41.7	12.9	538
11 " "	West	145	14.4	9.7	140
12 " "	East	90	8.7	47.2	411
12 " "	West	180	8.8	10.0	89
13 " "	East	160	22.3	18.9	421
13 " "	West	—	—	—	—

Period 31/12/16 to 31/5/17.

No. 2 Shaft—		Footage Sampled.	Reef Width.	Reef Value.	Inch. Dwt.
2 Level Drive	West	90	85.7	12.1	1037
3 " "	East	180	15.5	55.2	856
3 " "	West	120	38.0	23.7	653
4 " "	East	120	15.3	25.9	396
4 " "	West	—	—	—	—
5 " "	East	30	18.0	44.5	801
5 " "	West	—	—	—	—
5 " "	West	—	—	—	—
10 " "	West	60	36.0	19.4	698
10 " "	West	90	34.0	11.4	368
1 " "	East	120	19.8	22.6	447
11 " "	West	160	24.3	9.6	238
12 " "	East	160	39.1	9.0	352
12 " "	West	180	32.8	8.7	285
13 " "	East	150	17.8	32.6	580
13 " "	West	225	18.3	22.3	408
14 " "	East	165	33.9	10.2	346
14 " "	West	210	31.4	5.2	163
No. 1 Shaft—					
10 " "	East	60	39.0	15.8	620
10 " "	West	70	26.4	33.2	876
11 " "	East	60	41.0	14.7	603
11 " "	West	—	—	—	—
12 " "	East	90	14.0	32.0	438
12 " "	West	150	14.2	15.3	217
13 " "	East	—	—	—	—
13 " "	West	70	16.0	19.9	318

New Plant.

As regards our plant, you will know that the new Butters Filter plant came into commission about March of this year, and was running thoroughly efficiently in April. As soon as that was in order we at once took in hand the conversion and electrification of the hoisting arrangements at No. 1 shaft which were necessary for the tonnage requirements on an enlarged basis of production. This work has just been completed in the last day or two, and during the change over it has not been possible to hoist any ore through No. 1 shaft. On this account, the tonnage output for the current month will probably be a little below last month's. From the end of this month, therefore, we can look forward to a gradual increase in our tonnage crushed, and the mine is well equipped to deal with the greater tonnage provided the supply of native labourers improves. At the present moment we, in common with most other mines on these fields, are appreciably below our requirements in this respect. We continue to get most gratifying results as regards temperature in our lowest levels and also general working conditions and efficiency, as a result of the large amount of money that has been spent upon these requirements. The support of the mine workings continues to receive careful attention, and is being effected partly by a system of reef packing and partly by sandfilling. A seven-inch borehole from the surface for filling the western worked out areas has recently been completed, and very soon sand will be sent into the mine in much greater quantities. As you will have seen from the reports, and particularly from the accompanying plan, arrangements have been concluded to tribute an area of about 20 claims to the New Goch Gold Mines, Ltd. This area, as you will see, is in the extreme north-eastern corner of our property and is isolated from our main workings by two faults. It therefore presented to this company considerable difficulty in economical development and subsequent stoping, and the arrangement we have made with the New Goch Gold Mines, Ltd., is based on terms which are of mutual benefit to both parties to the agreement. As you know, a dividend of 22½ per cent. for the current half-year has been declared. The mine and plant are in a very satisfactory profit earning condition, and much good work has been done by the consulting engineer, Mr. E. H. Clifford, the manager, Mr. Percy Sherwell, his officials and workmen. Our thanks are due to them for good service. Of the company's employees, 123 are on active service. It is with great regret

that we have to record the deaths on active service during 1916 of Lance-Corporal Emery and Privates Petrie, Halliday and Telford, in addition to the death of Trumpeter Curtis, which we had to record a year ago, and during the present year of Privates Crawley, Harper and Hunter. Our respectful sympathy is tendered to the relatives of these men. We also have to record the recent death of Mr. J. H. Ryan, who was for many years a director of the company.

I now beg to move the adoption of the report and accounts for the year ended 31st December, 1916.

The report and accounts were adopted, and the retiring directors (Messrs. R. W. Schumacher and F. R. Lynch), and auditors (Messrs. C. L. Andersson and Co. and Mr. Chas. Stuart) were re-elected.

DURBAN-ROODEPOORT DEEP.

The 20th ordinary general meeting of shareholders of the Durban Roodepoort Deep, Ltd., was held on June 21st in the board room, Corner House. Mr. F. Raleigh presided, and there were also present Messrs. E. J. Renaud, S. C. Steil, H. W. Thomas, H. Willans, A. F. Mullins, J. L. Jourdan and H. C. Boyd, representing 246,787 shares out of an issue of 450,000.

The Chairman said: Gentlemen,—The past year has been one of disappointment in that, compared with the previous year, the operations show a drop in the average value of gold recovered, equal to 8d. per ton, although the tonnage mined from the South Reef was increased by 14 per cent. The effect of the lower yield has been to reduce the working profit by £11,218. I am pleased to say that working costs have not increased and practically the same tonnage was milled. The fall in the yield was caused by the low values recovered in the months of April to August, inclusive, which averaged only 24s. 8½d. per ton, as against 26s. 7d. per ton for the year 1915. From the end of August to the close of last year the grade improved, and indeed rose during last December, and in January of this year, to 28s. 4d., which is a higher recovery than that obtained for the previous two and a half years, and considerably higher than should be expected from the present ore reserves. I mentioned at our last annual meeting that periodic variations in the values obtained from the mine is a feature of your property as they had occurred at intervals previously, and the results of the year which has elapsed since our last meeting again confirm this view. It would appear that we have no alternative but to accept these periodical variations in grade, although no change is made in mining from the various current stopes. A good deal of attention has been paid to this matter by the consulting engineer and manager. In their opinion the variations in recovery are due to the patchy occurrence of the gold in the south reef, which, although fairly uniform over large areas, shows considerable variation in the stopes as they are worked.

Last Year's Operations.

Regarding last years operations, the working profit earned was £40,833, which was reduced to £37,558 by payments made to the Miners' Phthisis Compensation Fund, donations, etc., less interest and sundry revenue. This latter sum, together with £111 derived from forfeited dividends, made £37,669 available to the credit of appropriation account, which has been dealt with as follows: Expenditure on capital account, £8,740; payment of Government taxes, £3,375; payment of dividend of 21 per cent. £11,000; increase to credit balance of appropriation account, £14,554; total, £37,669. The amount to the credit of

appropriation account was thus raised to £59,774, and you will see in the directors' report that this sum is invested as to £37,104 in stores, shares in co-operative concerns, debtors and payments in advance and that the balance of £22,670 is represented by the net cash on hand after allowing for liabilities then outstanding. Our cash position has been strengthened from £7,284 at the end of 1914 to £22,670 at the end of last year. This has been done deliberately in order to make provision for the expenditure which has to be incurred on the two winders on order, which are to be installed underground in the vicinity of the 12th level to equip the mine with the necessary secondary stage hoisting required for the exploitation of the mine to its southern boundary. These hoists were ordered in December, 1915, but owing to the war the suppliers have been compelled to cease work on their construction, and the position now is that their completion is suspended until the termination of hostilities. You have previously been advised that the company expected to spend £37,645 on their installation, of which £6,438 was expended to the end of last year. Owing, however, to the rise of prices of some of the materials required this estimate will be considerably increased. I am not able to tell you to what extent, but I think by about £6,000, which would bring the balance of expenditure yet to be made up to about £37,000, towards which the present net surplus cash of £22,670 exists. It would be wise policy to earmark some portion of the current year's profit to provide for the estimated balance of about £14,000 required. No dividend was declared for the second half of 1916, in order to conserve funds to pay for the winders. The operations of the past year are fully reviewed in the consulting engineer's and manager's reports. Approximately the same tonnage was mined and milled as during the previous year, whilst the development footage showed a decrease of 2,082 feet. Of the total footage, namely, 11,119 feet, accomplished during the year the value of that entering, or likely to enter, into the valuation of payable ore reserves is as follows:—Main Reef 10.6 dwts over 35.8 ins.; South Reef, 52.6 dwts. over 5.0 ins. These figures, compared with those of the previous year (1915), show a slight improvement for the Main Reef and a corresponding slight decrease in the South Reef. It is a gratifying note that the consulting engineer reports the lowest South Reef level (13 b) now practically above the South Reef reserves as a whole.

Re-estimate of Ore Reserves.

The re-estimate of the ore reserves on hand at the end of last year shows a slight reduction in tonnage, which is represented by the difference between the payable tonnage developed for the year and the tonnage mined from the ore reserves. The value of the ore reserves shows a drop of 2 of a dwt. per ton. Since our last meeting some further progress has been made in the sinking of the west stage incline, and at the end of last month it was 743 feet below the 12th level. The consulting engineer reports also that shaft sinking is now better advanced in relation to the drives that has been the case for some years. Sinking in the east stage incline has been discontinued for a time, while the incline is being timbered and equipped for hoisting. A satisfactory feature of the past year's work is the fact that working costs have not increased, although the burden upon our working expenditure due to the war is an increasing one. The manager estimates these extra costs at 6½d. per ton above the extra war costs of 1915, and I think it speaks well for the management that the working costs are not above those before war broke out. As regards the prospects for the current year, for the five months ended May 31, 155,650 tons have been milled or an average of 27,130 tons per month, as compared with 26,650 tons per month for last year. The working profit has amounted to £18,867, or an average of £3,773 per month, which is £370 per month more than the average monthly working profit of last year. The development operations for the first five months of the current year indicate a lower

footage per month as compared with the average monthly footage for the year 1916. The loss of footage must be attributed to the non-delivery of the underground winders. However by next month the change-over at the west incline to a temporary hoist will have been effected, after which it is expected that development should again increase considerably, so that the ore reserve position should show but slight decrease at the end of the present year. No interference with development, at least up to the end of 1918, due to the postponement of the delivery of the main hoists is expected, granted, of course, that working costs do not increase unduly owing to the war, and also that the labour position remains satisfactory. Values exposed in development during the first five months of the current year remain normal, though slightly lower than during 1916. A dividend of 2½ per cent. has been declared by the board for the current half-year.

Roll of Honour.

Up to the end of last month 70 of the company's employees have gone on active service. The company continues to afford financial assistance to its employees who have been permitted by the management to enlist. Two of the company's employees have lost their lives in the service of their country, viz.:—Captain W. P. Madore and Second Lieut. F. C. Lee, while four of the company's employees have been wounded. Our sympathies are extended to the relatives of those who have fallen. The management of the mine has remained in the hands of Mr. A. P. Rouillard, under the direction of Mr. Percy Cazale, the consulting engineer, and I desire to record the board's appreciation of their work during the past year and that of the mine and head office staffs and employees. Your directors very much regret to record the death of one of their colleagues, Mr. J. H. Ryan, who has been a director of the company for many years. I now beg to move the adoption of the report and accounts for the year ended 31st December, 1916.

The report and accounts were adopted. The retiring directors, Messrs. H. C. Boyd and J. G. Currey, were re-elected. Messrs. Ernst Dankwerts and J. D. H. Lang were re-appointed auditors.

GELDENHUIS DEEP.

The twenty-second ordinary general meeting of shareholders in the Geldenhuys Deep, was held on June 26, in the board-room, Corner House, Mr. E. A. Wallers presided, and there were also present Messrs. B. H. Davis, S. C. Steil, H. W. Thomas, Comte, F. de Ferrieres, Messrs. R. M. Connolly, F. Raleigh, M. Honnet, A. F. Mullins, H. C. Boyd, C. Meintjes, and V. J. Ronketti, representing 336,005 shares out of 585,753 issued. In moving the adoption of the report and accounts for the year ended on December 31, 1916, the chairman said:—Gentlemen,—The reports and accounts are before you. From them you will observe that there was a further very satisfactory increase in the number of tons passed through the mill compared with the previous year—almost as great as the improvement made during the previous twelve months. The tonnage milled was 696,300, as against 638,800 in 1915, and the yield per ton was 25s. 5d., being 1d. less than the previous year. On the other hand, there was a further considerable improvement in the working costs of 11d. per ton, and this, combined with the increased tonnage referred to, brought the working profit for the

year up to £169,478, or nearly £41,000 more than during 1915. The price of stores continued to rise during the year, but the extra cost was counter-balanced by the increased tonnage and the decreased cost of development. To the working profit of £169,478, must be added sundry revenue amounting in all to £14,914, the details of which will be found in the accounts. These sums, together with the £160,980, balance unappropriated at the 31st December, 1915, give a total of £345,372. Out of this, two dividends of 12½ p.c. were paid, absorbing £146,438, and also £14,167 for taxes and £1,903 being the annuity paid to the Government in respect of undermining rights, so that £182,864 were carried forward, or about £22,000 more than the year previous, in spite of an increase of 5 per cent. in the dividend rate. £108,506 of this balance are represented by net cash, if we include £10,000 Union Government 5 per cent. local registered stock, which cost us £9,975, and the interest from which is exempt from income and super tax in the Union. The remainder is represented by stores and other cash assets. It is still incumbent on us to keep a large supply of stores on hand. The financial position of the company, therefore, remains sound. During the year 16,147 feet of development work was done underground, which is some 5,000 feet less than during the previous 12 months; but, as I explained to you last year, we must expect a more or less steady diminution in this respect. The payable ore reserves at the end of the year were estimated to be 1,616,000 tons at 5.9 dwts., showing a decrease of about 211,000 tons and a decrease in value of 2 of a dwt. We have opened up some fairly good ore in the western section, but a large footage has been necessary, in order to get at it. In the lower portion of the eastern section the values have been more consistent, but rather on the low side. When addressing you last year I said that the prospects for the year under review were bright, assuming a continuance of the then excellent labour supply. It did continue for some time, and I think you will agree that the results for the year were excellent. Towards the end of the year, however, the number of natives began to fall, and is still declining. The average number of boys on the mine during the last three months is some 800 less than the average number working monthly last year, and this falling off has a very great deal to do with the diminished profits of the last five months, the monthly average to date being some £3,000 less than that of 1916. An improvement in the native labour position will favourably affect our profits again. I am sure you will join with me in expressing great satisfaction at the continued steady decrease in the number of fatal accidents, a tribute to the value of the attention paid by all the staff to safety measures. We have 122 men on active service, and it is with deep regret that the names of Captain E. Whiting, Privates J. S. Pressby, and N. G. Fenix, and Conductor G. Raath have to be added to the list of those who have made the great sacrifice. Our deep sympathy in their loss has been conveyed to the relatives of these men. During the year your directors proceeded with the scheme for laying out some of the deproclaimed portions of your property into small agricultural holdings. Up to the end of the year 479½ acres were sold for this purpose, realising £4,875, and up to the end of last month £1,212½ acres for £12,281½, the number of purchasers being 152. The number of sales during April and May—that is to say, nearly a year after the first plots were taken up—was far larger than in any previous months, which indicates the success of the scheme. Our thanks are due to the consulting engineer, Mr. Clifford, the manager, Mr. Tucker and to all the staff and employees for their efforts.

The report and accounts were adopted, Messrs. H. Newhouse, E. A. Wallers, and F. Raleigh were re-elected to the directors.

Messrs. Alex. Aiken and Carter, and Messrs. C. L. Andersson and Co. were re-appointed auditors.

THE VILLAGE DEEP.

The 17th ordinary general meeting of shareholders in the Village Deep, Limited, was held on June 26th in the boardroom, Corner House. Mr. H. C. Boyd presided, and others present were Messrs. C. Marx, F. C. Dumat, A. Spring, C. Meintjes, W. H. B. Fraik, A. F. Mullins, E. M. Hind, E. A. Wallers, H. W. Thomas, and S. C. Steil, representing 422,935 shares out of 1,060,671 shares issued.

The Chairman said:—Gentlemen, the tonnage milled during the past year, with which the report before you deals, was slightly greater than during 1915, and the recovery was higher by 1s. being 29s. 6d. per ton milled. Costs, however, were 2s. per ton greater. Apart from increases directly attributable to the present times, such as enhanced cost of stores and materials, war bonus to employees and allowances to those on active service, there was additional expenditure on development, an increase of about 4,700 feet for the year being recorded. The transfer of mining activity to the lower part of the mine entailed appreciable expense, and there was considerable abnormal expenditure, including such items as the replacement of guides in No. 3 Shaft and the equipment of the 20th level with mechanical haulage, while the pressure experienced at the great depth at which work is now proceeding necessitated special measures for the support of the hanging wall at very considerable cost. From the net profit of £268,774—£27,626 less than the previous year—dividends amounting to 18½ per cent. were paid, and Government taxes, proportionately less at £39,547. The expenditure charged to capital account was slightly under £13,000, the major portion being the amount payable in annuities in respect of undermining rights leased from Government, now increased through the acquisition of such rights under an area known generally as the Wemmer Pan, a little over 38 claims in extent, the situation of which is shown in the plan attached to the report. You will note that the final payment in regard to Waterright No. 371 has been made. The balance carried forward at the close of the year was increased to £124,069, including £85,747 invested in stores and materials, a considerably greater figure than usual, but necessary under existing conditions.

Development Work.

As you will have gathered from the technical reports, and as the plan indicates, a considerable amount of development work was done in the ground underlying Springfield Township and Extension, for which no credit can be taken till an agreement can be come to with Government regarding the acquisition of the undermining rights there. As the proclamation of Turfontein should not now be long delayed, it is hoped that before very long it will be possible to come to an agreement at least about the extension and the at present unproclaimed ground lying between our lower minepact and the recently-acquired area. Meantime, owing to this unproductive work and increase in unpayable disclosures in other parts of the mine, the ore reserves were reduced at the close of the year to 2,378,100 tons, but the average value improved by 2 dwts. per ton. Just under 344,000 tons were developed, and valued at 8½ dwts. over the assumed stopping width, while, in addition, it is estimated that by footwall driving work sufficient to develop 650,000 tons was done, about 300,000 tons of which it is assumed will prove payable. Of these latter tonnages some 190,000 tons lie in the Springfield Township and Extension areas, a fourth of which, so far as can be seen at present, is likely to be unpayable. Generally speaking, good values were encountered in the extreme east and west of the property, but a considerable area immediately west of the main incline proved unpayable. During the first five months of 1917 costs have increased by about 1s. 4d. per ton on the average, while the recovery of the past year has been more than maintained; continuance of such recovery is to a great extent dependent on an adequate labour supply, the importance of which is emphasised in the

technical reports. We are holding our own fairly well at present in this respect, but the general labour position is unsatisfactory. The monthly profits have averaged £18,176 owing to sales of old plant, etc., there has been a credit on balance to capital account of some £8,400, but cash assets, mainly stores, have increased by a little more than twice that amount. A dividend of 7½ per cent. has just been declared for the half-year, somewhat improving the position in regard to available cash as compared with that at the beginning of the year. In about 10 months time it will be necessary to meet an expenditure of about £21,000 for the provision of further pumping plant, owing to the increasing depth of the workings. The necessary orders were placed some weeks ago. Under the Bewaarplaatsen Bill, which has passed both Houses of Parliament, this company will receive about £7,400 shortly in 5 per cent. Union Bonds and £9,600 spread over a long period.

Increasing the Depth.

Considerable progress has been made in opening up the mine in depth. The main incline is now well below the 27th level, the station on which has been cut, or about 5,400 feet vertical from the surface. For some months the ground was extremely difficult to hold during shaft sinking, and progress was slow, but the shaft has now passed into settled country in which the mining conditions are quite satisfactory. The 22nd level has been connected with the west development incline; the 23rd and 24th levels have made very considerable progress east and west, and the 25th level has recently been started. The east development incline is below the 23rd level and has entered the Wenmer Pan ground, the limited disclosures in which so far are not up to expectations when compared with the relatively high values of the levels above. The number of reef exposures on the 22nd, 23rd and 24th levels is limited, but values so far as known are below the average. On the 23rd and 24th levels, however, it is satisfactory to note that there has quite recently been some improvement west of the main incline, and it may be that the limit has now been reached of the considerable zone of unpayable lying on that side. Summarising the present development position it appears from the information now available that there is, generally speaking, impoverishment in values; it is to be hoped that this will prove to be only a temporary phase such as has been previously experienced in this mine; should an improvement not occur shortly a further reduction in the ore reserves must be looked for at the close of the year.

The Roll of Honour.

A large number of our employees continue on active service and we have now to record with great regret the further loss of Pte. Wm. McLeod and Corp. R. B. Eadie, to whose relatives we offer our respectful sympathy. We have also to deplore the recent death of Mr. J. H. Ryan, who had been a director of this company for many years. The Board wishes to express its appreciation of the services rendered by the consulting engineer, manager and staff generally during a trying period. I now beg to move the adoption of the report and accounts for the year ended the 31st of December, 1916.

The report and accounts were adopted. Messrs. R. R. Hollins and W. H. Dawe were re-elected to the directorate.

Messrs. Douglas, Low and Co., and Mr. Charles Stuart were reappointed auditors.

BANTJES CONSOLIDATED.

The 20th ordinary general meeting of shareholders of the Bantjes Consolidated Mines, Limited, was held on June 26th in the board room, Corner House, Mr. F. Raleigh presided, and there were also present Messrs. E. A. Wallers, H. A. Rogers, C. McIntyre, H. H. McNeil, W. H. B. Frank, W. T. Grahame, R. Goldmann, G. Sonn, Comte F. de Ferreira, Messrs. G. C. Fitzpatrick (for Mr. J. Friedlander), S. C. Steil and H. W. Thomas, representing 181,033 shares out of 502,306 issued.

The Chairman's Speech.

The Chairman said: Gentlemen,—You are aware that the operations of last year resulted in a net loss of £9,326 on working account. This loss was occasioned by the falling-off in the value of the ore mined, equal to 1s. 16d. per ton, as compared with 1915, whilst the working cost showed a decrease of 4d. per ton and the tonnage mined an increase of 44,000 tons. The working loss referred to was reduced to £7,697 by net credits received, and after allowing for the difference between credits on capital account and expenditure on Government taxes a final net debit of £7,326 is deducted from the previous year's balance of appropriation account. The manager's report gives full particulars of the operations of the past year. As you are aware, the policy commenced about August, 1915, was practically to abandon regular development in the south reef owing to its poor value. I need hardly remind you that up to that time—now nearly two years ago—the mine had been worked almost entirely as a south reef proposition, because that reef had always been the chief gold carrier, and it was only after the work of the two years ended June, 1915, produced such poor results that it was decided to practically abandon its further development. It was at this stage that your board decided to concentrate development operations on the leader—which was showing better indications in certain areas—in the hope that it would take the place of the south reef as a gold producer, realising that unless it did so there would be no future for the mine. Since then a vigorous development policy has been carried on in the leader. During the two years ending this month 23,000 feet of development have been accomplished in it, to effect which a further 5,550 feet of cross-cutting had to be carried out. Concurrently 5,880 feet of development have been done in the known payable areas of the south reef, and the total average monthly footage for the two years ending this month will have amounted to about 1,460 feet, which has constituted a very heavy charge on working costs for a company of the size of the Bantjes. The results of this extended work in the leader can be seen from the following:—

	Leader Ore Reserve Tonnage.	Value.
At the end of 1915 ..	142,800	6.3
At the end of 1916 ..	198,300	5.8
At 31st May, 1917 ...	237,520	5.85

The latter figures, i.e., for May, 1917, are naturally not given in the reports before you, but have been specially compiled so that your information may be brought up to date. When considering the figures of the past two years we have to take into account the tonnage mined from the leader reserves during the same period, which has amounted to 117,906 tons. The percentage of leader payable based on tonnages developed has been: Last half of 1916, 37 per cent.; during 1916, 51 per cent.; first five months of 1917, 51 per cent. Development has more recently

shown up four areas of payability, which are referred to in the consulting engineer's report. With the exception of last year's development values have been maintained this year. The results obtained in May show that several of the drives, raises and winzes which were in payable ore became unpayable, and we can only hope that further work in them will show that this falling off is only temporary. South reef development having been virtually stopped, and the bulk of the ore mined during the past two years having been obtained from this reef, a large shrinkage was naturally to be expected, but there was keen disappointment in finding that on the revision of ore reserves at the end of last year there was the large decrease of 291,500 tons in this reef. Of this 120,000 tons represented the tonnage mined from the south reef reserves in excess of the tonnage developed in that reef during last year, and the balance, 171,520 tons is accounted for by the necessity of excluding ore which proved unpayable as the result of the past year's operations including re-sampling. While the consulting engineer's report states that of the now excluded ore some may yet prove payable, the information now available makes it necessary for it to be ruled out of consideration. The failure to recover values proportionate to those called for by previous estimates has led to the reduction of 5 dwts. per ton in the value of these reserves. We shall gradually work out the present south reef reserves down to the 11th level below which practically no pay ore is exposed on this reef and probably again test it at greater depth from the leader workings.

Securing of Funds.

As soon as the reserves at the end of last year were ascertained it became evident that a more vigorous policy of development would have to be adopted. On receipt of the consulting engineer's recommendations, the cash resources of the company—totalling about £14,500 (exclusive of stores on hand) at the end of March last—did not admit of the adoption of such a programme, especially in view of the monthly losses then being incurred, but it was felt that the results in the leader development warranted the securing of the necessary funds if possible. Fortunately the Central Mining and Investment Corporation, Ltd., and the Rand Mines, Limited, offered to finance the company up to £75,000 at 6½ per cent interest on the condition that they have the right to discontinue making any further advances if at any time, in the opinion of the lenders, the values disclosed by development or other mining operations are such that the further exploitation of the mine is not warranted, or, if for any reason connected with the war, such as a shortage of stores or high prices of stores, materials or labour, it is desirable to suspend operations pending resumption of a normal state of affairs. This offer your board gladly accepted, the security being an irrevocable power of attorney, in favour of the lenders, to execute a first mortgage bond on the whole of the company's property and assets. This loan assures the company of a chance to recover itself if the future development of the leader discloses satisfactory results. The consulting engineer has laid out a programme for extending the scale of leader development. Should, unfortunately, results in the near future prove disappointing, it will be necessary to stop developing, and it will then probably be advisable to work out the present ore reserves prior to the closing of the mine. In regard to the current operations, the published figures at the end of last month show a loss on working account of £16,706 for the first five months of this year. During this time 6,997 feet of development have been accomplished, and whilst the south reef reserves have been further drawn upon to the extent of 12,000 tons, the leader reserves show an increase of

30,000 tons. It is clearly impossible to forecast the working results to be obtained in the near future, and I can only say in regard to the output from the leader stopes that this is gradually increasing, and should have a favourable effect upon the milling operations. In January last the output from the leader reserves was 5,121 tons and for last month 8,834 tons. The consulting engineer estimates that the leader output should be further increased to about 15,000 tons per month in the next few months. It is unfortunate that the company should be in its present uncertain and difficult position at a time when the cost of working is so high, due to the war, and the increasing cost of stores and labour make the future more uncertain than in normal times. This increased cost, combined with the scarcity of native labour, bears particularly heavily upon low-grade mines and makes the continuation of operations increasingly difficult for them. Economy, both at the mine and head office, has been one of the chief matters which your board has constantly had before it, and I am satisfied that everything possible has been done in the direction of curtailing non-productive expenditure. As you know, since 1st September, 1915, to the end of last year your directors have accepted half fees; for this year the whole of the fees of the London committee and the directors have been waived, and, in addition, the services of the technical and secretarial departments of the Rand Mines, Ltd., are being provided practically without remuneration; and I can only tell you that if the future is not satisfactory it will be from no want of effort on the part of your officials or the board of directors.

The Roll of Honour.

Up to the end of last month 17 of the company's employees have gone on active service. The company continues to afford financial assistance to those of its employees now on service who have been permitted by the management to enlist. Two of the company's employees have lost their lives in the service of their country, viz., Lieutenant J. F. Ormsby and Lance-Corporal J. V. Davidson, and four of the company's employees have been wounded. Our respectful sympathies are tendered to the relatives of those who have fallen. We are pleased to record that Corporal John Hall has been awarded the Military Medal for conspicuous bravery at Delville Wood. The management of the mine has remained in the hands of Mr. G. Hildick-Smith, under the direction of Mr. Percy Cazalet, the consulting engineer. Our thanks are due to these gentlemen for services during the past year. The year has been one of stress to the officials at the mine, and I desire to record your Board's appreciation of their work and that of the employees at the mine and the head office officials. I now beg to move the adoption of the reports and accounts for the year ended December 31, 1916.

The report and accounts were adopted.

Messrs. C. S. Goldman and W. H. Dawe were re-elected to the directorate.

Messrs. C. L. Andersson and Company and Mr. Ernest Danckwerts were reappointed auditors.

MEYER AND CHARLTON.

An ordinary general meeting of the shareholders of the Meyer and Charlton Gold Mining Co., Ltd., was held on June 28 in the board room, General Mining Buildings. Sir George Albu presided.

The Chairman said: Gentlemen,—The two outstanding features of the mining operations of your company for the past financial year are the appreciable increase in the tonnage and value of the ore reserves, and the profit earned for the

period, which represents a further record in the history of this highly successful concern. The ore reserves, consisting at the end of 1916 of 512,787 mining tons of fully developed ore of an average value of 14.5 dwts. calculated over a width of 51.3 inches, and 161,410 tons of partially developed ore of an estimated value of 17.1 dwts. per ton, reflect an increase of 27,541 tons of fully developed ore and close upon 2 dwts. in the aggregate value, as compared with the end of 1915, and an addition of 114,844 tons of partially developed ore. As the high values of the reserves would indicate, the increases mentioned are practically entirely due to the development on main reef leader, which has fully borne out the evidence of richer deposits in the lower levels of the mine, to which I referred in my address at the previous annual meeting. I would draw your attention to the satisfactory feature which is again shown by the manager's report for 1916, e.g., that only 80,345 tons of leader, of a value of 20.7 dwts., were mined and hoisted during the past year, as compared with 167,213 tons, of an average value of 21.6 dwts. per ton, developed during the same period. This, of course, partly accounts for the increase in the ore reserves, but it also demonstrates that, notwithstanding the high recovery per ton from milling operations last year, we were crushing ore of an average value below that of the ore we are developing. I may here remark that, in compiling the ore reserves, the values disclosed by sampling are adjusted to a lower figure, which is arrived at by applying to them the percentage of recovery to mine value which is actually obtained from the ore milled for the previous year; so that the value figure of the reserve is, as far as possible to estimate, the value which should be recovered after treatment. This means that if we milled the different bodies of ore (main reef, south reef, and main reef leader) in the same proportions as they are represented in the present ore reserves the average yield would be approximately 60s. per ton. Reference to the manager's report for the past year, however, shows that in addition to the rock obtained from these ore bodies, 6.31 per cent. of the total ore hoisted came from development faces, and 10.37 per cent. from reclamation work in the upper levels; although these additional sources yield a profit, their grade is comparatively low—say, 5½ dwts.—and therefore has the tendency to bring down the average recovery value of the ore milled as a whole. It would consequently be safer to reckon the recovery value of the existing ore reserves, after adding the same proportion of development and reclamation rock as was milled last year, at between 52s. 6d. and 55s. per ton—as compared with the actual average recovery of 49s. 7d. for 1916. I think we may regard this as a conservative estimate, especially in view of the fact that during recent years the ore stoned on main reef leader has given a higher general yield than the value indicated by the block assay plan.

Review of Accounts.

Turning now to the accounts, it will be seen that a gross profit of £263,966 was earned for the past year. Of this, £75,929 has been paid to the Government for profits tax, percentage of annual net produce in respect of undermining rights leased to your company, and war levy. Two dividends (of 45 per cent. and 55 per cent. respectively, making 100 per cent. for the year) were distributed, absorbing £200,000, and income tax, miners' phthisis compensation, and depreciation on investments, amounted together to £8,412. These payments and provisions total up in the aggregate to £284,341, so that we have really entrenched to the extent of £375 on the unappropriated balance of profit brought

forward from 1915, which is therefore reduced to £122,102 as the carry forward from 1916 to the current year. I may here explain that the debit of £26,028 to appropriation account in respect of war levy for the period to 31st March, 1917, really represents a period equivalent to 1½ years, as, for reasons given in my speech at the previous annual meeting, the charge to the 1915 accounts was only in respect of half the estimated liability for the levy for that year. As regards the balance sheet, there is little call for comment. The cash on hand and gold in transit together represent a value of £305,898, as against which our liabilities were £110,000 to shareholders for the dividend declared in December, £35,824 for sundry creditors and unclaimed dividends, and £69,297 to the Union Government in respect of profits tax, etc., or a total of £215,121. In other words, the account shows a cash surplus of £90,777—a matter for congratulation in these uncertain times when the outlook in several directions is of an anxious character, and when, therefore, a strong cash position is more than usually desirable. The only other items in the balance sheet to which I need refer are stores on hand, which appear at £15,882, as compared with £9,766 in the previous year's accounts, and under the heading of investments our holding of £17,500 in Transvaal 3 per cents., which has been written down to 60 per cent. of the nominal value of the stock. The augmentation of the stock of stores was necessitated by the increasing difficulties in obtaining regular supplies; the depreciation written off the "Transvaal Threes" is, of course, in order to reduce the book value to round about market prices.

The foregoing remarks deal with all the salient points of the past year's operations and accounts, so far as they occur to me. As regards the operations for the current year, the working profits earned for the five completed months to the end of May amounted to £110,893, as compared with £101,161 for the corresponding period of 1916, and these improved results have been achieved in spite of the abnormally low profit of £17,913 for February of this year, which month was prejudicially affected by a strike of the underground workmen involving the suspension of milling operations for five days. We anticipate a profit for the current month of from £22,000 to £23,000, and these combined results enable us to declare for this half year the dividend of 50 per cent. which was officially notified a few days ago. With what I think I may term, without being flamboyant the magnificent ore reserves in hand, with the further development operations continuing to disclose (as they are doing) similar high grade ore, and in view also of the strong financial position there can be no doubt as to the maintenance of the high standard of prosperity which this company has experienced, more especially during recent years.

Roll of Honour.

At the present time 22 of your company's employees (equal to over 17 per cent. of the white labour complement) are away on active service. I am sorry to say that two of the employees, viz., Major C. J. French and Private Herbert H. McCarthy, have lost their lives while these others have been wounded and two are prisoners of war. We desire to tender our sincere sympathy to the relatives of those who have fallen.

In closing my review I cannot do better than to express our appreciation of the services rendered by your manager, Mr. H. G. Nith, who, as indicated in the last few paragraphs of his report for the past year, has initiated several valuable economies in the direction both of saving of labour and consumption of stores.

The report and accounts were adopted.

Messrs. Leopold Albu and Arthur French were re-elected to the directorate.

Messrs. C. L. Andersson and Company and Mr. F. W. Diamond were reappointed auditors.

CON. MINES SELECTION.

The 21st ordinary general meeting of the shareholders of the above company was held at Winchester House, London, E.C., on Tuesday, May 8, 1917, to transact the following ordinary business: (1) To receive and consider the report of the directors and the balance sheet and profit and loss account to December 31, 1916; (2) to declare a dividend; (3) to elect two directors, and (4) to elect auditors and fix their remuneration. Mr. Walter McDermott (chairman of the company) presided. Mr. Charles W. Moore (secretary) read the notice of meeting and the report of the auditors.

THE ACCOUNTS.

The Chairman, who was cordially received, said: Gentlemen, I beg to move: "That the directors' report, balance sheet, and profit and loss account be and they are hereby approved and adopted." Assuming you will take the report and accounts as read, I will call your attention to a few of the figures which are of chief interest. The capital is still £552,500 in 10s. shares, debentures are reduced to £96,520, creditors are larger by about £6,000, and contingent liabilities are reduced by about £29,700. On the credit side quoted and unquoted securities stand at £626,926 17s. 10d., an increase of about £21,700, debtors and debit balances at £101,353 3s. 4d. are higher by about £39,500, and arise in the regular course of the company's business. In the profit and loss account you will miss—without regret—the old-time regular yearly item of "written off sundry accounts," which in the preceding year was a charge of £6,802 10s. 8d., and in previous years had been much heavier. Our passage through long periods of market depreciation has naturally resulted, by our system of valuation, in getting down the assets on our books to safe figures, which, taken at market prices, show a very considerable appreciation. The operating expenses have increased by £640 15s. 6d. on balance of increased income and increased outlay in London and Johannesburg, and that this balance is not still larger in these times may be taken as comforting, for the scale of our operations has grown steadily, and, furthermore, there were some special expenses on new business in 1916, and special war allowances to staff.

THE CASH POSITION.

The cash position is strong enough for any probable early calls for outlay, the balance sheet showing cash, Government securities, and secured short loans, amounting to £186,693 8s. 10d. Since the accounts were made up these cash items have been rearranged to allow of a subscription of £100,000 to the War Loan, and this requires no explanation. The net profit has grown from £81,422 6s. in 1915 to £124,003 10s. 9d. for 1916, the increase being due to trading profit and dividend income in about equal amounts. From the profit it is proposed to transfer £15,000 to reserve account—which will then be £60,000—and, if you agree to the dividend I shall propose of 22½ per cent., there will be a balance carried forward into 1917 of £20,801 10s. 7d., from which, however, will have to be deducted special remuneration to directors under the articles of association, and to managing directors in London and Johannesburg by agreements in force. The year's work has been a very satisfactory one, not merely in the realisation of profits, but also in the establishment of new conditions promising good results for the future; while the mining developments of our subsidiary companies (in which our holdings have not been decreased) justify the expectation of good dividend returns.

THE MOST IMPORTANT EVENT OF THE YEAR.

Perhaps the most important event of the year for us was the securing of the deep level leases of the Brakpan mine. In South Africa, more than in any other mining district of the world, long views can be taken, and investors are not satisfied to have a short life ahead of a property. The developments of Brakpan, as a whole, have been highly satisfactory, but the rate of working, and the usual uncertainty as to a continuation of the past proportion of profitable ore in the undeveloped claims, impressed on us the advisability of acquiring a larger area to assure a long life for the company. The opportunity of tendering for the Government leases to the south enabled the Brakpan Company, from its mining position, to offer such good terms, and such early returns, that the new area was secured; and, on the hopeful basis in common use on the Rand for undeveloped property well situated in a known district, it is now estimated by our Engineer that the Brakpan Company has actuarial prospects of 25 years' life, at the rate of exhaustion proposed, which contemplates an ultimate doubling of the present capacity. It is not necessary to go into the terms of the lease, which in general is a partnership arrangement with the Government, by which participation is based on results, and on conditions which it is calculated should not interfere with dividends to existing Brakpan shareholders up to the time when proposed increased milling capacity is expected to increase the dividend returns. The financial arrangements necessitate the ultimate issue of 100,000 more Brakpan shares; but this increase of capital will be spread over some time. The Brakpan Company was not the only tenderer for the new leased ground; and, from all we can learn, other mining groups have a very favourable opinion of the area we have secured. The business required a very large expenditure of time and work, and consideration of alternative policies involving complicated calculations by our engineering staff, and Mr. Knecht is entitled to credit for his successful efforts to evolve a suitable basis for our tender. In the negotiations with the Government we were fortunate in having the assistance of Mr. Ernest Oppenheimer, late Mayor of Kimberley, who went to South Africa as our special representative in all the financial details and devoted himself to our interests, ably seconded by Mr. Lynch.

BRAKPAN POSITION AND PROSPECTS

The mining position at Brakpan can be generally indicated by a few figures such as you are accustomed to receive annually, because the matter is one of such importance to us directly. The ore reserves at 3,054,000 tons show a gain over extraction for the year of only 37,000 tons; but in the adjustment and re-valuation which takes place at the end of each year the average assay value of this tonnage is now 9·2 dwts. over a stoping width of 62 in. This is a rise of 1·34 dwt. over the 1915 figure, and that was itself a higher grade than we used to feel justified in expecting from the mine. Our Engineer estimates that the average grade of ore, as delivered to the mill after mining and sorting, will be between 34s. and 38s. per ton, but it is to be noted that the exact value in any one month depends on conditions of mining and underground transport which vary from time to time. The April return which has just been published was 35s. 3d. The net working profit for the year was £402,908 from 709,300 tons crushed, or £55,887 above 1915 profit, when 15,868 more tons were milled, and this in spite of working costs being 1s. 3d. higher at 19s. 3·6d. per ton. This means that the yield per ton was 3s. better. There was a very regrettable

winding accident with loss of life, which was largely responsible for the reduced tonnage milled. Developments for the first quarter of the current year are very satisfactory; and some excellent blocks of ground have been opened which, when fully developed, must add important quantities of high grade ore to this year's reserves. The main incline shaft south, which, in its regular course, has been off the reef for quite a long time, has lately passed through ore of excellent grade, which seems to be a continuation of a rich ore shoot to the east of the shaft shown by the levels above. It is of great interest to have good indications to the south towards the new leased area, for, although we are still so far from the old boundary as to make any present bearing of development a remote one, a little imagination is a requisite of successful mining. The higher average grade of the ore reserves will only show results in the mill gradually, but, from our Engineer's statements, it should be made manifest in the total results of this year, and the tonnage milled should also show an increase. Against this, working costs seem still likely to rise under war conditions, affecting prices of supplies, labour expenses, and transport. Following from the conditions of the new lease, it is intended to proceed without delay in the preparation for an addition to the mill, increasing the capacity as a first step to 75,000 tons monthly. It is possible to begin a move in this matter now, because much of the material first needed is obtainable in South Africa, since new machinery cannot be manufactured or shipped at present. Shaft sinking will proceed on the new area in preparation for the larger scale development and mining necessary a few years hence for the greatly increased milling capacity contemplated. In our printed report the position and extent of the new claims will be seen on the plan accompanying the Brakpan report.

SPRINGS MINES REACHES THE PRODUCTIVE STAGE.

The Springs mines has now reached the productive stage. The mill did not start in 1916, but returns have lately been published of the first crushings, and these are satisfactory, when the governing conditions incidental to mill starting are allowed for. The situation in the mine is such as to warrant the expectation of good profits monthly from now on. A beginning has been made with a profit of £17,654 for April. The ore reserves at the end of 1916 were 1,750,000 tons (about five years' of present milling capacity) of average assay value of 9·86 dwts. over 56in. stoping width. The year's development accounted for 650,000 of this tonnage. The capital expenditure incurred to the productive stage has exceeded original estimates owing to delays, to some extension of plans, to great rise in cost of materials and transport, and to large purchases of the supplies necessary to keep the mine and mill in operation. This position has necessitated some additional financing of the Springs Company, arranged for without difficulty, but it will have some effect on the date and rate of dividend distributions. The position of the mine is sound, and a very good grade of ore can be sent to the mill at any time hereafter. The intention of the directors of Springs Mines, Ltd., to ask their shareholders at their annual meeting for authority to increase the capital from £1,000,000 to £1,500,000 is merely a precautionary measure, which it seems desirable to take in case of an opportunity arising for a more extended scale of operations. There is no such opening actually in sight, but the occasion of the Springs Company's meeting this month offers an opportunity for a consideration of contingencies which may arise in connection with some of the new Government leases surrounding the Springs mine.

DAGGAFONTEIN POSITION

The Daggafontein Mines, Ltd., report appears for the first time in our annual collection, and the financial position is fully set out by the directors. The development work from one shaft has been over a limited area only, and so far has shown the reef to be smaller than in the Springs mine, but of very good assay value. Over a length sampled of 1,660 feet the average grade was 30.87 dwts. for a reef thickness of 6.51 in. There is evidently a good deal of irregularity in the reef thickness, and in the distribution of gold, for in January of this year the profitable portions of the reef averaged 23.25 in. with assay of 17.62 dwts. and during February 8.0 in. and 37.76 dwts. All we can say, therefore, at present is that we have to push development further before we can estimate the working results to be expected from the property.

RAND SELECTION CORPORATION RESULTS.

The Rand Selection Corporation is our old friend the Transvaal Coal Trust under its new name, and with the wider views indicated by that change. At our last meeting I was able to give you all the details of the proposed working arrangement of this company with the Consolidated Mines Selection Company, since carried into effective operation. This agreement is fully set out in the report of the directors of the Rand Selection Corporation, which has been distributed with our own report. The Corporation has done well for the year. Sales of stands in the Brakpan and Springs Townships have been very satisfactory, as a result of the activity of all operations in the Eastern Rand. The profit from coal mining was £14,909 16s. 9d., about the same as for 1915. Dividends on shareholdings were £114,637 10s., showing an increase of about £13,000, and the net balance of profit was £160,052 16s. Two dividends were paid totalling £151,250, equal to 27½ per cent. on the issued capital of the Corporation now £550,000. The Corporation has already experienced some advantage from its arrangement with our company by participating in several financial undertakings of a promising nature. The Corporation retains its large holdings in Brakpan and Springs mines.

A BUSY AND SUCCESSFUL YEAR.

There have been several transactions during the year connected with South African mining which I could not go into within the reasonable time limit of a meeting like this, and it will be enough if I say that the year has really been a busy one for our company, and that the two managing directors here have been successful in several important negotiations likely to benefit the company hereafter. In this connection I will add that the success which has attended our mining work has established a certain confidence in our good luck among a number of mining investors, so that we have assurances of strong financial assistance, in addition to the support we may expect from the Rand Selection Corporation, when we have new business to put forward in a definite form. This position is gratifying, and it means that our available financial resources are not the necessary measure of our operations; but there is, I think, a corresponding obligation on the Board not to presume on success in the past as a basis for widespread optimism on all openings for new business because we have had experience of periods of unfavourable mine developments which produce necessarily and quickly a reaction in general feeling among both engineers and investors. In a very interesting address of Mr. Wallers to the Transvaal Chamber of Mines, he calls attention to the benefit the gold mining industry has been to this country and South Africa in the present war; to

the increase of £1,000,000 in gold produced, for £1,000,000 less profit than in 1915; to the extra obligations incurred by the industry, and to the voluntary personal sacrifices made by the mining population to assist the Government; but he points out that the regular continuance of operations is dependent on a certain, if relatively small, transport tonnage being secured for supplies. Thanks to co-operation amongst most of the mining groups, and to foresight in the matter of purchase of supplies, the mines are for the time very fairly stocked with all but a few materials. We must, in any case, look to having some further increase of working costs while present conditions prevail. The New Era Company has had a successful year, as shown by the increased dividend paid. The interests of the company outside of South Africa do not require any description, for the only change to be reported since our last meeting is that the Burma Corporation mine has had a very active year's work devoted to development and surface equipment, and the tonnage of high grade lead-silver-zinc ore—in sight has very largely increased. The Corporation is producing lead and silver from some of its ores by the enlarged smelting works; but is doing nothing as yet in zinc production, which must await the somewhat distant completion of a concentration mill, now in process of construction.

TRIBUTE TO THE STAFF AT HOME AND ABROAD.

Our African managing director, Mr. Lynch, has had a very busy and useful year for himself and staff owing to the widening of our interests and management. Our Consulting Engineer, Mr. Knecht, with his mining and mechanical engineering staff, has done excellent work arising from his increased responsibilities. The managers of Brakpan, Springs Mines, and Daggafontein (Mr. Davis, Mr. Bushell, and Mr. Pridgen) deserve special mention. Our London secretary, Mr. Moore, has had extra work with a reduced staff, and they have together successfully coped with it by stealing a few hours from the night, according to the classical prescription for lengthening our days; and the same remark applies to Mr. Jefferys, in charge of the London ends of some of our subsidiary companies. To all of these our thanks and congratulations are due. Of the seven of our old London staff who have been on active service, four have suffered, but none fatally, we are glad to say. Our subsidiary companies have been more unfortunate, for, I regret to say, they have together lost nine in killed and missing from the large number who have given their services during the year. Before putting the motion to the meeting I shall be pleased to try to answer any questions which may be put. I will ask Mr. Frecheville to second the motion.

Mr. R. J. Frecheville: I beg to second the motion.

The Chairman (after a pause): As there seem to be no questions I will put the resolution with which I began, "That the directors' report and balance sheet and profit and loss account be and they are hereby approved and adopted." This having been seconded, I will ask those in favour to indicate the same in the usual manner—on the contrary; carried unanimously. I now move, "That a dividend of 22½ per cent. (2s. 3d. per share), less income tax, be and the same is hereby declared payable to all shareholders registered on February 23, 1917; that the sum of £15,000 be placed to reserve account, and that the balance of £20,801 10s. 7d. be carried forward to next account."

Mr. F. W. Green (Director): I shall have much pleasure in seconding the motion.

The Chairman: It has been proposed and duly seconded that this dividend be declared; those in favour—on the contrary; carried unanimously. I see there is absolutely no objection. (Laughter.) The next business is the re-election of directors, which I will leave to someone in the body of the hall to propose.

Dr. Brown Clark: I have much pleasure in proposing "that Messrs. W. McDermott and F. W. Green be and they are hereby re-elected directors of the company."—Mr. E. Martin seconded the motion.

Dr. Brown Clark put it to the meeting, and it was carried unanimously.

Mr. E. Winn proposed, "That the auditors, Messrs. Deloitte, Plender, Griffiths and Company be and they are hereby re-elected auditors for the ensuing year at a remuneration of 200 guineas."—Mr. F. M. Bolland seconded the motion, which was put to the meeting and carried unanimously.

The Chairman: "That, gentlemen, I think, completes the whole of the business before the meeting.

Mr. Alfred Hicks: Before we separate, I think the shareholders would like to pass a vote of thanks to the board of directors. I have had the pleasure of proposing a vote of thanks to them on a good many occasions, though not during the past few years. I have often said that when a company was in its earlier stages—when it was struggling—that you gentlemen had more work to do and more worry, and had more need of our thanks than now. At a meeting like this I think the shareholders would like to convey to you that we do recognise—and it must be a great satisfaction to yourselves—that the success of this company is certainly not due to the efforts of the people on this side of the table, but to your efforts, and you must have the full credit of it. I remember when this was a small company, and it is well to recognise that to-day the Consolidated Mines Selection is, if not the leading group in South Africa, certainly one of the leading groups, and that, I may say, is a very great source of satisfaction, both to yourselves and ourselves. I therefore have much pleasure in proposing a vote of thanks to the directors and managers, and I wish to congratulate you on the successful position and prospects of the company at the present time.

Another Shareholder: As a somewhat old shareholder I would very much like to second that resolution. I think the greatest possible credit is due to those gentlemen who have the management of this company, and it certainly redounds to their honour.

A RECENT RAND VISITOR'S VIEWS.

Mr. Dundas Simpson: I have lately returned from South Africa, and I desire to associate myself with the remarks of the gentleman who proposed the vote of thanks to the chairman and managing directors. I was out in Africa for two and a half years, and I am thoroughly conversant with the East Rand, in which I have taken an interest for the last 25 years. I could see the great growth of development which has taken place there since my earliest visit. I may say to those gentlemen who are not conversant with the facts that I was the largest shareholder in the East Rand Central mines, and negotiated the deal which eventually came into your Brakpan mines. I look upon these mines out there, starting from the Brakpan and going to the far east of the Springs, as not being a gamble, in the ordinary sense of the word, in which we have regarded mining in the past. I do not know whether you are aware of, and have followed up, the great development of Brakpan, Springs, and the Governmental areas. Over a line

of seven miles we can rely safely on 55 per cent. of payable ore. The prospects of these mines are great, and I look upon them as an investment of the first rank. I myself have every confidence in their future, and in connection with the great ventures out there with which your efforts are so much associated. You have stuck to the Far East, where the wise men came from, and did not go to the West, and I hope you will remain there. I also wish to associate myself with the broad-minded policy of your board in dealing with your employees. I have noticed the good accommodation you provide for your men—the good roads, electric light, lawn tennis, cycle courses, and every modern comfort—they have the advantage also of a beautiful climate. There are men living there in houses which in this country would be worth £10 or £12 a month. I am also very pleased to observe in the report of the Transvaal Chamber of Mines that the great scourge of phthisis is being reduced to a minimum. You have men working there, with their wives and families, who are perfectly contented and happy, and there is a rising generation springing up. Those are men you want there, and they are your stand-by. There is one point that you have overlooked, which I should like you to have made, and that is that you and we have a great deal for which to thank the Government of the Union of South Africa and General Botha and his able lieutenants in being in a position to-day to bring this report before the shareholders. I was in South Africa during the rebellion, which ended in but little disaster to the country, though it might have been very serious.

THANKS TO THE UNION GOVERNMENT.

We cannot overlook the great things that the Union Government have done for us, for their sympathies are with the mining industry in every possible way. When you have a Government assisting you in every way an investor has no fear in putting his money into South Africa. I have been in America and Canada looking for investments. We have all drifted abroad looking after them, and it is a strange thing that we all come back to the first love—namely, South Africa, which is a country which will enjoy the confidence of investors. As long as mining houses do the same as this company does, being frank with their shareholders and laying their cards on the table, telling the shareholders everything you will enjoy that confidence, and people will look upon South African investments not as a gamble, but as an investment. I have much pleasure in associating myself with the vote of thanks proposed to the managing directors here and in South Africa, and to all connected with it in every possible way. A good mine makes a good manager, as my friend Mr. Frecheville knows, but a good mine, a good manager, and good directors who know their business are the three essentials to a company being a great success.

The motion was carried unanimously.

The Chairman: I am very grateful indeed for the kind way in which this resolution has been proposed, seconded, and endorsed by the last speaker. I listened with much pleasure to what he said in regard to his personal experiences and views of the Far East Rand. I think that South Africa is fortunate in its mining groups. As a whole, they have done a great deal for the mining industry, including the welfare of the men in their employ, and we can also associate ourselves with Mr. Simpson's remark in regard to our gratitude to the Government. In fact, we did put an expression to that effect in our directors' report, both last year and this. I beg to thank you, gentlemen, for your kindness.

The meeting then closed.

NATIONAL BANK.

The ordinary meeting of shareholders of the National Bank of South Africa, Ltd., was held on June 22nd in the board room of the National Bank, Pretoria. The Hon. Hugh Crawford presided, and in moving the adoption of the report and financial statement said:—We shall, I assume, take as read the report and the balance sheet for the year ended 31st March, 1917. It affords much gratification to your board that it is possible to lay before shareholders such an eminently satisfactory statement of affairs. The period through which we have passed has been one of trial and difficulty, but the business of the bank shows growth, and its position has become still stronger. The great war continues without sign of abatement, and we must steel ourselves to face days of difficulty and anxiety ahead. Our sacrifices and those of our Allies have already been tremendous, but the results recently achieved on the western front—in which the South African Contingent has had such a glorious share—confirm us in the belief that there can be only one end to the war. That end, I am convinced, will be the triumph of the Allies. We rejoice that the great American nation has now ranged itself on our side with an evident determination to take a full part in the struggle until a settlement is reached which will make it impossible for any nation to ever again plunge civilisation into such a vortex of blood and anguish.

Before endeavouring to forecast what financial events are in store and how they will concern us, I shall, as is usual, dwell shortly on the main items appearing in the balance sheet. The paid-up capital stands at £2,850,000, the small increase apparent being caused by allotment of a few additional shares, the issue of which was authorised at the extraordinary general meeting held on 29th September, 1914. The reserve fund, although appearing at the same figure as in the preceding balance sheet will be increased to £700,000 if you adopt the recommendations of the board. The paid-up capital and reserve will then appear at the substantial figure of £3,550,000, which affords very ample security to depositors. Notes in circulation figure at £1,789,587, an increase of £543,104. The deposits stand at £27,246,501, as against £23,157,243, which, I think you will agree, is a pleasing increase in what is perhaps the most vital item in our balance sheet. The remaining liability items do not call for special comment, and I shall now pass to the other side of the balance sheet. The cash assets, including money at call in London, appear at the substantial amount of £7,477,845. Investments, comprising almost entirely British and Colonial Government Stocks, which are practically all in the gilt-edged category, stand at £3,292,030, this being the market value at 31st March, 1917. When on this occasion last year I referred to the heavy provision which it had been necessary to make for depreciation, it was not articulated that any further large sums would have to be set aside for this purpose. We have had, however, to face and make provision for further decline. I should mention—and I am sure it will afford satisfaction to shareholders to know it—that we have rendered tangible support to the Imperial Government by investing in the War Loan and in British Treasury Bills.

Bills of exchange amount to £5,357,202, which marks an increase of £894,270. Our liquid assets, comprising cash, money at call in London, investments and bills of exchange, aggregate £16,127,075, and represent 53 per cent. of our liabilities to the public. Bills discounted, loans, etc., stand at £17,158,665 as compared with £14,227,831, a decided increase. The higher expenses and prices prevalent owing to the war have made the task of assisting to finance the production and realisation of the merchandise of the country a

very onerous one. We have, as is customary, written a substantial sum off our bank premises account, and the item is a real asset and indispensable to our business. During the year alterations have as usual been necessary at some of our branches owing to growth of business, in which connection I mention your board's decision to rebuild our office in Pietermaritzburg. Sentiment caused us to hesitate here because the present building has served the branch for over 63 years, but the needs of our business demand the change.

Profit and Loss Account.

Profit and loss account for the 12 months ended 31st March, 1917, including the amount carried forward from the preceding year, reflects a net profit of £418,634 as compared with £221,578 attained the previous year—this after deducting £30,000 placed in reduction of bank premises account. Out of this balance your board recommends payment of a dividend at the rate of 6 per cent. per annum. An interim dividend at 6 per cent. per annum for the first six months of our financial year has already been paid, and this, with the distribution now proposed, absorbs £169,500. After allocation of £175,000 to reserve fund—which is equal to a dividend of fully 6 per cent.—and £25,000 to the pension fund, there is left £49,134 to carry forward. All bad debts and those doubtful in character have been fully provided for.

I have already alluded to the increase in our note circulation, and for a moment I wish to refer to note circulation generally in this country. I do so in order to direct the attention of the public to the free manner in which gold continues to be used here. In no other part of the world, I think, is gold coinage so extensively employed. It is rather anomalous that while we all desire to assist the Imperial authorities in the prosecution of the war, we, as individuals, often fail to avail ourselves of a means so readily at hand as the wider adoption of paper currency, which would release much gold and render it available to the authorities for the vital purposes of exchange. We are, I know, handicapped in this respect by the presence of a large native labouring population, whose traditions and lack of education render it unwilling to accept notes. At the same time there must be quite a large proportion of other sections of the community now using gold to an unnecessary extent, and it is to this proportion that I appeal in the hope that it will repair what amounts to an omission of duty during war time. We have in our note issue a £1 and 10s. denomination, created with the object of providing a popular substitute for gold coins.

The Country's Trade.

It is customary on these occasions to attempt a brief review of the general situation in South Africa, and in following this precedent I first desire to remark upon the prosperous condition of the country's trade. So far it has not suffered; on the contrary, producers have, as a result of the war, been obtaining quite exceptional prices. As evidence of the flourishing state of trade, I may point out that at 31st December last deposits with the South African banks amounted to no less than £53,000,000 as against a total of £45,000,000 as at 31st December, 1913—a striking comparison when we take into consideration the large sums which have left South Africa for investment in war loans overseas and the success of the last Union Loan, which produced nearly 4½ millions new money. Scarcity of ocean freight is, however, having an embarrassing effect on both exports and imports. The price of nearly all commodities has reached a high level and, in some quarters, a sharp reaction upon the cessation of hostilities is predicted, while in others the view is held that there will be no sudden slump in prices. In all probability an era of prosperity will outlast the war for perhaps two or three years, to be followed, however, by reaction when supply again begins to overtake demand. In the meantime our productive powers are being steadily developed. New industries are springing up in various parts of the

Union, and in many instances the establishment of one fresh enterprise brings about the inauguration of several dependent undertakings, all this making for progress of the most natural and healthy kind and giving us encouragement to believe that after a long era of experiment we are at last commencing to develop our resources in earnest. I may appropriately allude to the formation in this country of a small institution known as the Industrial Development Company, Ltd. It is modelled on the lines of a trade bank, concerning which, as you are aware, there has been much discussion in the United Kingdom. The institution, I think, is one we should welcome, and we have shown our approval in a practical manner by taking a small participation to assist in its initiatory stages. The purpose of the trade bank movement, of which so much has been heard in Great Britain, is to stimulate enterprise by direct investment, which, of course, entails the "locking-up" of funds for uncertain periods. While, therefore, calculated to give impetus to the trade of the Empire, industrial banks will not encroach upon the functions of banking institutions proper, as by reason of the comparatively illiquid nature of their assets they should not receive deposits. I have mentioned the assistance which trade banks may be expected to render to commerce, and I cannot pass from the subject without directing attention to the great part played by our banking institutions in the financing of the country's trade. Our banks are of the most vital importance in this respect, and although they do not take, and cannot be expected to take, a direct share in enterprise, the support they lend to South African industries is incalculable.

Mining Operations.

The gold mining industry still takes pride of place and its outlook is healthy. The Union's output for 1916 was £39,489,774 as against £35,627,461 in 1915. Notwithstanding the greater output, the dividends, in the aggregate, were less than in the previous year. Increased working costs, attributable to war conditions, have set a serious problem for the lower grade mines, but increasingly efficient methods go a long way towards counteracting this adverse factor. Several new areas have been given out on lease by the Government during the year and very satisfactory results have been attained at the newer mines on the far East Rand. Diamond mining has revived, and the prices realised for diamonds must be deemed very satisfactory. Tin was produced in the Union to a value of £356,447 as compared with £340,428 in 1915. The industry, while having disappointed the optimistic estimates of a few years ago is still an important one in which great hope is placed. Copper remains in good demand and has been produced to a value of £1,132,140 as against £817,793 in 1915. The Union's output of coal amounted to over 10,000,000 tons, valued at £2,715,313, which figures show substantial increase when compared with those for 1915. Freight difficulties have interfered somewhat with the export trade, but the falling away in this respect has been more than made up by the greater demand for bunker coal. Regarding the farming industry and to refer first to wool, I would remind you that a year ago we thought the price had attained an almost inflated point, but the year with which we are dealing has seen continued advancement. The quantity exported in 1916 was valued at £6,611,657 as against £5,380,031 in 1915. Restricted shipping facilities and the consequent accumulations of wool at our ports have imposed no inconsiderable strain on merchants and institutions connected with the financing of this branch of our export trade. Mohair was exported to a value of £1,115,685.

The production of ostrich feathers—once such an important industry—is an enterprise concerning which it is still impossible to chronicle progress. As this product is not only a luxury, but one, the demand for which is governed by the capricious decrees of fashion, it is difficult to predict its immediate future, but so beautiful is the article that surely it must eventually regain its popularity. Meanwhile it is unfortunate that those who have specialised in this branch of farming do not seem to have shared in the welcome rains which have visited most other parts of the Union. Their efforts to otherwise turn their land to account must thereby have been partially frustrated. It would be imprudent to hazard a guess as to the value of the maize crop, but ultimately it must reach gigantic figures. To-day private enterprise is yielding large results, but when capital becomes available for the more extensive conservation of moisture there will, I am convinced, be further development in the farming industry. The capital expenditure necessary to lead to the great attainments of which the land is capable will, however, be heavy, and the task is one for Government rather than for private enterprise. In regard to the maize export trade fortunately for the farmers, the Imperial Government has arranged to provide shipping facilities. The growth of wattle bark's an industry upon which we have in the past built great hopes, but here again freight disabilities have interfered. But they have brought compensation, as witness the efforts of those enterprising, and I am happy to say successful, people who have provided in Natal plant for the extraction of tannin. This plant is already of great benefit, and will when extended be of much greater importance to the large wattle growing tracks of Natal and part of the Transvaal. Fruit growers have also suffered, and must for a time, I fear, continue to suffer, from restricted opportunities of securing freight to the great markets overseas. They need, however, not be discouraged. They have already studied to some purpose the requirements of these markets and with the restoration of normal conditions rapid strides should be made. Meanwhile it would not, I think, be inappropriate to turn attention to the canning and drying of fruit, an industry which, as I pointed out last year, seems one naturally to be engaged in because we have the sugar farmer at our door. Sugar planters continue to do well, and to have excellent prospects. The country has great hopes for this industry and confidence in those directing it.

Export of Meat.

The export of meat commenced as an experiment a year or so ago, promises to develop into a most important industry, and our stock farmers are indebted to the enterprise which has provided them with an avenue to the markets overseas. We have great opportunities for developing this trade, and there are signs that we are not neglecting to avail of them. In recent years animal life has hardly kept pace with human consumption, and at least one country which formerly exported beef on a large scale has now to import. The resources of South Africa have, however, scarcely been tapped by the markets of the world, and it has been estimated that the annual increase leaves a large surplus available for export. Scientific breeding will, moreover, speedily yield great improvement in quantity and grade. Mention was made at our meeting last year of the projected manufacture of ammonium sulphate, and I am pleased to say that production has become an accomplished fact. To sum up, I am fully convinced that prosperity lies before us, although in these times it is difficult to discern what the immediate future has in store. For a time our trade may be hampered by the conditions of war which for some time have been more severely limiting freight facilities. We shall, however, have to endure this temporary inconvenience, and the lack of certain commodities formerly imported from overseas may cause us to investigate our resources, and to devise substitutes. In the same way should exportation of certain of our products be restricted we may learn to more largely turn our raw material to account in South Africa.

With the restoration of peace there are, I think, likely to be introduced many improvements in the commercial and social life of the Empire of which we are a unit. There will, I feel, be greater sympathy and less distinction between the richer and the less fortunate classes. There will, let us hope, be increased opportunity for scientific education, although this may mean less time for the classical subjects now so universal in our colleges. Last year I referred to the decimal system and the metric system of weights and measures, advocating the adoption of both. I preserve the same mind on this subject, and again plead for the change as a time and labour saving measure, and one calculated to facilitate commercial intercourse with other nations.

The money markets of the world continue to be influenced by war conditions. During the year the average Bank of England rate was £5 12s. 4d. per cent. Many loans were raised in America by the Allied Governments, and also by Municipalities at rates in the neighbourhood of 6 per cent., while the great British War Loan produced the colossal sum of £1,000,000,000 and yields a rate of about 5½ per cent. to the investor. Other belligerents also brought out large loans and until the restoration of peace must continue to do so. The Union Government 5 per cent. Loan, referred to at the conclusion of my address last June, proved a most gratifying success and produced £4,464,010 new money.

During the year under review the bank has extended its field of operations to British East Africa and to the territory known as German East Africa, a logical sequel to the extension to South-West Africa as reported to you last year.

Employees on Active Service.

I referred last June to the number of officials who had proceeded on active service, to the casualties, and to those members of our staff who had made the supreme sacrifice. It is now my sad duty to record further casualties as, since we last met, 24 of our officials have been killed in action, one has died of wounds, while 25 have been wounded, in several cases dangerously—some of these wounded will, as a result, be under serious physical disabilities for the rest of their lives. Two officers are also prisoners of war and three are missing, but let us hope also prisoners. Mr. H. S. Thorpe, of our Johannesburg Branch, has gained the Military Medal and Mr. J. Hodson, of London Office Staff, the Military Cross. We honour and have pride in these officials and in the others making up the long list of those who have gone on active service. To the staff remaining behind our thanks are due, and it will be readily recognised that the setting free of some 300 officers for active service has imposed a serious strain on their colleagues who have had to stay at their posts. London office has also been hard pressed. The experiment of temporarily employing lady clerks, I have pleasure in recording, is proving a success. Without the loyal service of our staff—often given under difficult conditions—the results which I have had the privilege of announcing could not have been achieved, and I am sure you will approve the Board's recommendation that a bonus be awarded. At the close of my address last year reference was made to the question of an increased dividend. It had been my hope that, ere now, shareholders would have reaped a fuller benefit from our large earning powers. Your Board, however, has felt that, our highly successful year notwithstanding, the rate of dividend should not be advanced in these times of war. During the year Mr. Walter Greenacre, finding it difficult to attend Board meetings, owing to the long journeys entailed, resigned his seat, much to his regret and that of his colleagues. I now beg to move the adoption of the report, balance sheet, profit and loss statement and the recommendations of your Board.

Those present at the meeting included Messrs. J. Emrys Evans, C.M.G., J. Ellis

Brown, E. Renaud, Hon. A. Oliff, Hon. J. Rissik, C. Maggs, R. Hamilton, E. Haines, F. Heys, Dr. Engelenberg, H. L. Malherbe, A. Sutherland, J. B. Mackinlay, G. N. Jones, K. M. Hosack, W. R. Hosack, J. A. Nicoll, T. W. Harding, and T. Tait, W. Dunlop and G. A. Liddell, the assistant general managers, and C. P. Mathews, the secretary.

The retiring directors were re-elected, and also the auditors.

A vote of thanks to the staff was proposed, and in proposing it the Chairman outlined a generous pension fund scheme for the widows of officers which will be considered by the board in due course and thereafter submitted to the officials. The bank will vote £25,000 to the fund, which will be on a contributory basis of 1 per cent. of salary contribution by members of the staff.

A vote of thanks to the Chairman concluded the proceedings.

TRANSCVAAL CONSOLIDATED LAND AND EXPLORATION CO., LTD.

Mr. H. C. Boyd presided at the annual meeting on June 28 of the Transvaal Consolidated Land and Exploration Co. and the shareholders present included Messrs. S. Marks, B. T. Bourke, Julius Jeppe, A. F. Mullins, C. Meintjes and G. Falcke, and W. S. Lewis, secretary.

The Chairman said:—The directors' report and the accounts now before you give full information about the past year's operations. Of the alterations in investments, etc., and realisations from mineral prospects enumerated, it need only be said that the effect has been to strengthen materially the cash resources of the company. This year the holding in Union 5 per cent. Loan has been increased to £65,000 and £12,500 of British 5 per cent. War Loan have been subscribed for. There has lately been a brisk demand for stands in the Braamfontein Company's property, and a satisfactory number have been sold. That company successfully contested at law the method of assessing and the actual valuation of its property by the Municipality under last year's valuation roll and secured a large reduction. The sale of some 39,000 acres of land recorded in the report may be considered satisfactory under existing conditions. This year the demand for land seems to be extending; already approximately 55,000 acres have been sold, while five additional farms have been let on lease, making 92 farms in all leased to white persons at date.

Native Administration Bill.

The Native Administration Bill was published last January, and as the company's interests are likely to be seriously affected thereby I must refer to it at some length. In terms of this Bill large tracts of land, mainly in the Transvaal, are to be set aside into which the native population with certain minor exceptions is to be removed. With the main principle of the Bill all must be in accord, but various terms and conditions therein appear highly inequitable and this company therefore joined the Transvaal Land Owners' Association in making representations on the subject. Within the areas to be set aside, except under certain conditions, no one but a native may purchase or lease land. This restriction of market, severe in itself, is made still more so by

the provision that the present owner may not sell in any one instance to a number of natives exceeding five, except with the Government's consent. As nearly all native purchase is effected communally and there are but few individual natives able to purchase land it follows that the owner is virtually deprived of his market except by the grace of Government. There is little practical value in the provision that "if an owner cannot find a native purchaser after advertising his farm for sale at a minimum price, he may have a period of three months within which to sell to whites, provided Government does not itself wish to buy the farm at the advertised minimum price. Whites are unlikely to wish to buy in a native reserve, and given such a limited market the owner in his endeavour to realise will probably have to put an extremely low price on his property, at which Government gets a free option to purchase; further, the period of three months is an absurdly short period to allow as the sale of farms is generally a matter of lengthy negotiation. Yet another restriction, which in itself will make sales to natives almost impossible, is that natives are debarred from raising money on mortgage from non-natives. The usual basis of purchase by natives is by instalments, the balance of the purchase consideration being secured to the owner by mortgage bond. If this provision is not amended, therefore, owners can only sell for cash, unless the natives are willing to leave the title registered in the owner's name pending payment, a procedure under certain circumstances, such as the subsequent insolvency of the owner, fraught with danger to the native, and therefore unlikely to be adopted by him. Further, the owner himself may not borrow on the security of his land in a native area. It is, therefore, obvious that the Bill does not afford such owners a fair opportunity of realising their property and their vested rights are unjustly interfered with. The farms affected are held under direct Government title, free of restrictions, and if certain owners are thus to be deprived of their rights in order to serve a public need, the community as a whole should bear the burden and Government appropriate out of public funds. This was one of the recommendations actually made by the Commission appointed before the Bill was published, but it has been ignored in the Bill.

Native Squatters.

The provisions for the removal of native squatters from non-native into native areas are unfair to the natives. They are to leave the former at once, or if there is an agreement with the owner in two years at latest or to pay an annual squatter's licence, virtually prohibitive in amount. Government will not actually remove the natives but will merely exact the licence from the owner if they remain, consequently he will almost inevitably be compelled to evict the natives whether or not they have been able to find residence in the meantime in one of the demarcated areas. The suffering that may thereby be entailed need not be emphasised. Certainly insufficient time is allowed for the removal of the large number of natives who would be affected, and we strongly urge the further consideration of this point. Our views generally have been submitted to the Select Committee now considering the Bill, and we trust that eventually a measure will result equitable both to the natives and the owners of the land. When it is realised that under the Bill as it now stands no less than 560,000 acres of this company's land—nearly a fifth of its entire holding—will be included in those areas, it will be apparent how much we are concerned in the matter.

Sabie Game Reserve.

A Commission is now taking evidence in regard to the Sabie Game Reserve. For fifteen years a large amount of private land, including a very considerable amount belonging to this company, has been locked up in this reserve. While sympathising with the protection of the fauna of the country, we cannot agree to be indefinitely deprived of the use of our land.

Our breeding stock, in which, as you see, we have a considerable amount invested, continues to do well. As the directors' report indicates, the company proposed to start cattle ranching on a considerable scale on a large block of its farms in the Waterberg district, and a number of farms were purchased to consolidate the block, on which boring for water is proceeding with satisfactory results. Unfortunately, under the Native Administration Bill as it stands, the block will fall within a native area. Under the circumstances it appears doubtful whether it is wise to proceed with this scheme. It would be a pity if it had to be abandoned, as it was initiated largely with a view to opening up the northern districts and proving their suitability for cattle raising. It is to be hoped that the Select Committee may see its way to recommend the alteration of the boundaries of this particular area so that our block may not be entirely surrounded by what will eventually be native-owned ground. The desirability of extending our agricultural operations, especially in this time of shortage of food supplies throughout the world, is realised, and we have lately been preparing an appreciable amount of ground which will be put under cereals next year. The possibilities of certain areas in the middle and low veld, where we own land, in the direction of development by irrigation are being investigated. In connection with such work we are glad to have secured the services of Mr. Percy Greathead as land manager, in succession to the late Lieut.-Colonel Madge.

Prospecting and Mining.

The consulting engineer's report deals with the prospecting and mining operations of the past year. During this year the tributaries on Fence have done a considerable amount of work on the asbestos deposit, and have so far shipped some 580 tons. The prospects appear favourable, and an appreciable revenue should be derived from this tribute. The profit at Groentfontein was encouraging after the losses of the previous two years. During the first months of this year prospecting and mining continued with fair results. The mill has been running since the 1st May, and by the end of this month sufficient concentrate should have been recovered to more than cover the expenses so far this year. When the ore available for the mill is exhausted the plant will continue to treat accumulated residues till the latter part of the year, when the mill staff will return to Mutue Fides, and prospecting will be continued. Some quite favourable indications are at present being followed up. For economy one staff now operates alternately the plants at the two mines. The mill at Mutue Fides ran till the end of April, earning a profit of about £11,000 for the first four months of this year. Development and prospecting are now proceeding and there should be a sufficient accumulation of ore by the time milling operations can be resumed after the first rains. Fairview has proved a most disappointing proposition. After some years of fair returns the increasingly refractory nature of the ore necessitated the closing down of operations. Circumstances did not appear to warrant the incurring of the heavy expenditure which would have been necessary to alter the plant and do further development. The property has now been let on tribute on satisfactory terms.

The Switzland Tin, Limited, have continued to do well, and according to the published returns has made a profit of just under £13,000 for the first five months of this year. A dividend of 15

per cent. has just been declared for the current half-year. If the present price of tin is maintained an improvement in the company's profits may shortly be looked for as its scale of operations has lately been somewhat increased.

The satisfactory arrangement come to with the Central Mining and Investment Corporation, Ltd., and the Rand Mines, Ltd., in regard to further boring on Houtfontein is set forth in the report. You may recollect that the considerable amount of boring previously done gave quite unfavourable results, but we were advised that they should not be regarded as conclusive of the mineral possibilities of the property, and that boring with shot drills of considerable diameter as at present should decide definitely whether the reef warrants actual development, or whether the farm may in future be disregarded as a possible mining proposition. On the present line of boreholes the reef should be encountered at a depth of about 750 feet. The first hole, by an extraordinary piece of bad luck, happened to encounter dyke extending from 723 feet to 802 feet—embracing, that is, the horizon at which the reef was to be expected. The second and third boreholes were down at the end of last week 372 feet and 216 feet respectively. Drilling throughout has been somewhat slow, as chert boulders have been frequently encountered. Proportionately a large number of the company's employees continue on active service. This has thrown a good deal of extra work on those who remain, who have most loyally responded to the demands made upon them. I now beg to move the adoption of the report and accounts for the year ended 31st December, 1916.

Mr. Marks seconded the motion, which was carried. The retiring directors were re-elected.

AFRICAN LAND AND INVESTMENT CO.

The fifteenth ordinary general meeting of the African Land and Investment Company, Ltd., was held on June 22nd in the board room of the Consolidated Goldfields Building. The shares represented numbered 138,995 out of an issued capital of 300,000 shares.

Mr. D. Christopherson, who presided, in moving the adoption of the report and accounts, said that from the accounts which were laid before the meeting it would be observed that the income from all sources amounted to £16,858. This compared with £17,326 for the previous year, there being thus a decrease of £468, which in view of the circumstances was not a serious item, and was accounted for as under:—Decrease in rents and licences and transfer fees, £92; decrease in interest received owing to payment of interest bearing amounts, £293; decrease in dividends on investments, £190; less sundry increases, £107, making a net decrease of £468. After providing £10,000 for interest on debentures the year's operations resulted in a loss of £3,025, as against a loss of £1,606 for the previous year or an increased loss of £1,419, the greater part of which was represented by the item for reconditioning and sewerage properties, namely £1,607, which was £1,351 more than was charged out before. Hitherto this expense had been spread over a period of three years, but the directors had deemed it wise to write off the whole amount through the past year's accounts rather than saddle future years with any portion thereof. Rates and licences and sundry disbursements on unproductive properties showed an increase over the preceding year, being largely due to the application of the method of municipal assessment under the new Rating Ordinance passed by the Transvaal Provincial Council, which imposed a heavy burden on vacant ground in townships. The capital and debentures, as well as the reserve account, remained unaltered. On the credit side of the balance sheet fixed property stood at £439,652. This com-

pared with £436,753 at the end of the previous year. There was no alteration in shares and investments in sundry companies at cost, viz., £73,775. The extension and reconstruction of business premises in the city were still proceeding, and but little ground was now available in certain well defined business areas. The company's chief city holdings were very near to the business centre and indications were not wanting that the area would eventually extend beyond its present limits in a north-easterly direction towards Von Brandis Street and Von Brandis Square, where most of the company's stands were situated. Last year he informed the meeting that the company had acquired in freehold an area of ground in extent 250 morgen on the farm Witkoppen, on the railway line to Pretoria. This had been fenced, and up to 31st March, 1917, planted with 242,500 eucalyptus trees out of the 500,000 contracted for. The remainder of the half-million trees would be planted during the coming season, October to March. The company had also acquired the leasehold of another area on the same farm, in extent 66 morgen, which was already fenced and planted with about 50,000 eucalyptus trees, all or about two years' growth. It was confidently anticipated that when the timber was available for sale, some of which would be in a few years' time, these plantations would very materially strengthen the financial position of the company. As regards investments apart from properties the Chairman referred in particular to the Cape Sunday's River Settlement and the American Trona Corporation, as to both of which he spoke hopefully.

The report and accounts were adopted, and the retiring directors (Messrs. D. Christopherson and Lieut.-Col. F. Leslie Brown), and auditors (Messrs. Douglas, Low and Co and Messrs. F. W. Diamond and English) were re-elected.

NEW GOCH MINES.

Shareholders of the New Goch Mines, Ltd., held an ordinary general meeting on June 28 in the Board-room, General Mining Buildings, Johannesburg. Sir George Albu, in moving the adoption of the report and accounts, said:—Gentlemen,—The reports and accounts for the past year show that, with approximately the same tonnage milled as in 1915, the gross profit of £112,863 earned was some £17,700 in excess of that for the previous year. The larger profit was due to an increase in grade of about 6d. per ton, and, to a minor extent, to a decrease in working costs of nearly 4d. per ton. The latter result is particularly satisfactory, having regard to the large additional increase in the prices of mining supplies experienced during the year. After providing for profits tax, war levy, assessments in respect of miners' phthisis compensation, and expenditure for the year on additional machinery and plant and new development, there remained a net profit of £93,341, of which £55,000 was distributed in two half-yearly dividends of 5 per cent. each, and the balance of £43,341 was carried forward, which, added to the balance of £32,624 brought forward from 1915, represents a total unappropriated profit at the 31st of December last of £75,965. This would appear to be an unnecessarily large balance to carry forward, but, as explained in your directors' report, it is represented to the extent of about £42,000 by stores in hand, payments in advance, investments, etc., leaving an amount of approximately £32,000 only in available cash, which we have thought it advisable to retain in hand for the purpose of meeting such additional capital

expenditure as may be involved in opening up the 20 claims of the City Deep, Ltd., which we have arranged to work for joint account with that company.

Reduced Tonnage.

I referred at the previous annual meeting to the approaching exhaustion of the payable ore contents of your mine, and to the abnormal faulting met with in the lower levels on the east side of the main shaft, which had tended to still further restrict the life of the property. I regret to say that the disturbed character of the formation then described has since become still more pronounced, with the inevitable result that it is becoming more and more difficult to obtain sufficient working faces to supply the mill with its full normal requirements of ore. This position of affairs is reflected in the reduced tonnage treated in the reduction works during the first five months of the current year. The average monthly quantity crushed for 1916 was about 30,000 tons, whereas in January of this year only 28,500 tons were milled, and this figure was gradually reduced in the following months to 21,500 tons for May. As far as we can see, the tonnage is likely to be still further decreased during the remainder of this year, but I hope that after commencing to open up the City Deep ground in the beginning of next year we shall be able to revert to the 21,000 tons per month mark, and to at least maintain that level during 1918 and for some time afterwards. In the meanwhile, it is inevitable that the diminished scale of mining operations must also reflect on profits, especially during the next six months. For the current half year we have earned sufficient profit to cover the amount of the dividend of 5 per cent. which was declared a few days ago, without trenching on the funds earmarked for the development of the City Deep claims.

A Subsidiary Shaft.

As pointed out in the manager's report, for the past year, the faulted ground lying below the 19th level to the east of the main shaft is to be developed through the medium of a new subsidiary shaft (No 4A) now being sunk from the horizon or that level. This subsidiary shaft will subsequently be continued into the 20 claims of the City Deep, Ltd., which are the subject of the agreement between the two companies, for the purpose of opening up that ground. It is consequently necessary to install an underground hoist for the new shaft, and we have been able to arrange for the purchase locally of the mechanical and most of the other portions of the equipment, leaving only the electrical parts to be imported from England. Certain of these parts are already on the water, and it is anticipated that the remainder will arrive here during the next few months. In the meanwhile we are using a smaller hoist which was available on the mine, and which serves for the preliminary sinking operations.

On Active Service.

Your company continues to make allowances to those of its employees who have enlisted. At the present time 30 of the men, or 17½ per cent. of our complement, are away on active service, and I am very sorry to say that the casualties include three deaths, viz., Ptes. Frank Cardigan Bosward, William Martin, and William John Swarts, as well as five men wounded. On behalf of the Board I wish to express sincere sympathy with the relatives of those who have given their lives for the cause. I have much pleasure in again recording the Board's appreciation of the valuable services rendered by your manager, Mr. G. G. Holmes.

The report and accounts were adopted. Messrs. J. Freudenthal and Arthur French were re-elected to the directorate and Messrs. Douglas, Low and Co. were reappointed auditors.

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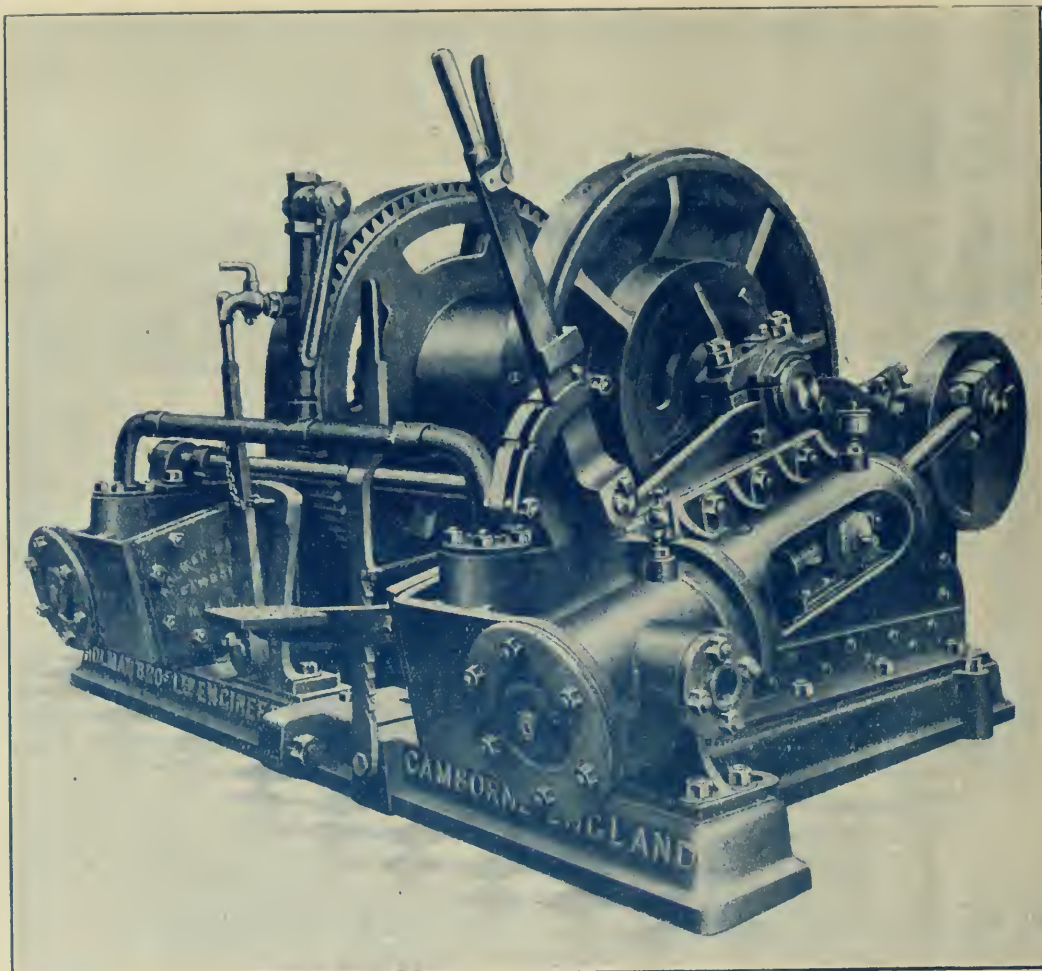
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